SR 167
Puyallup to SR 509

SR 167 Puyallup River Bridge Replacement
Final Supplemental Environmental Impact Statement and Record of Decision

July 2013

Edgewood

Puyallup

Fife

Lead Agencies

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

Cooperating Agencies

Army Corps of Engineers

City of Fife

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THIS DOCUMENT CONTAINS:

SR 167 Puyallup to SR 509, Puyallup River Bridge Replacement Final Supplemental EIS

167 Puyallup to SR 509, Puyallup River Bridge Replacement Record of Decision

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SR 167 Puyallup to SR 509

SR 167 Puyallup River Bridge Replacement

Final Supplemental EIS

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FHWA-WA-EIS-2002-02-FS

SR 167

Puyallup to SR 509
Pierce County, State of Washington

Final Supplemental Environmental Impact Statement

Submitted Pursuant to Section 42 U.S.C. 4332(2)(c) and RCW 43.21C
by the
Federal Highway Administration, and
Washington State Department of Transportation

7/15/13
Date of Approval

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Washington State Department of Transportation

07/16/2013
Date of Approval

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This Supplemental EIS documents the SR 167, Puyallup River Bridge Replacement project, which is a phase of the larger SR 167 Extension project. This phase of the project proposes to provide bridges and a roadway profile compatible with the SR 167, Puyallup to SR 509 extension project.

The SR 167 Extension project proposes to construct an extension of the SR 167 freeway from SR 161 (Meridian Street North) in the city of Puyallup to the SR 509 freeway in the city of Tacoma. The 2006 FEIS evaluated the mainline alignment as proposed in Tier I and multiple design options at the SR 509, 54 Avenue East, Interstate 5, Valley Avenue and SR 161 interchanges. The 2006 FEIS was completed in November, 2006 and the ROD was issued in October, 2007.

Copies of this document are available at the above locations for a cost of $35.00 ($2.25 for a CD), which does not exceed the cost of reproduction or distribution. The document is also available on the internet at the following address:
http://www.wsdot.wa.gov/projects/sr167/puyallupriverbridge/

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PROJECT TITLE: **SR 167 – PUYALLUP TO SR 509**

Project Location: **This portion of the project will replace the existing northbound State Route (SR) 167 Puyallup River Bridge. This phase would be constructed within Pierce County, Washington in the City of Puyallup.**

Project Description: **The Washington State Department of Transportation (WSDOT) is planning the completion of the SR 167 freeway between SR 161 (Meridian Street North) in north Puyallup and the SR 509 freeway in the City of Tacoma, otherwise known as the SR 167, Puyallup to SR 509 project or the 167 Extension project. The 167 Extension project includes an interchange between SR 167 and SR 161, just north of the Puyallup River. The *preferred alternative* entailed removing the Meridian Street Bridge and constructing a new five-lane northbound bridge in its place. The Tier II Final Environmental Impact Statement (EIS) for the SR 167, Puyallup to SR 509 project was completed in November, 2006 and the Record Of Decision (ROD) was issued in October, 2007. WSDOT received funding for engineering and to purchase right of way around this time.**

The SR 167 Puyallup River Bridge Replacement project is a phase of this larger project. The scope of the bridge replacement project is to construct a new bridge that meets current design standards, preserving the structural and functional integrity of the roadway and that is compatible with the ultimate crossing design of the SR 167 Puyallup to SR 509 project. The current northbound Meridian Street Bridge was constructed in 1925 and has reached the end of its life span. This phase will remove this existing historic steel truss bridge and modify the deck of the existing southbound concrete bridge to handle northbound traffic. A new concrete bridge will be built on the west side of the existing southbound bridge to handle southbound traffic. It will have a span of 560' with five piers. The existing Meridian Street Bridge will be dismantled and preserved offsite. WSDOT has negotiated with King and Pierce Counties regarding the potential for use of the Puyallup River steel truss on the Foothills Trail between Enumclaw and Buckley. If this plan is not feasible, WSDOT will advertise the historic bridge in an attempt to find an entity that is willing and capable of using or displaying the bridge, while maintaining its historic integrity.

This proposed design will serve existing traffic, and will accommodate the ultimate configuration of the proposed SR 167/SR 161 interchange and proposed five-lane northbound bridge of the 167 Extension project. When funding becomes available to complete the 167 Extension project at a later date, construction crews will be able to utilize the footprint of the Meridian Street Bridge to construct the first two lanes of the five-lane northbound bridge. The modified two-lane concrete bridge handling northbound traffic would then be demolished to make room to finish construction of the remaining three lanes of the ultimate five-lane bridge for northbound traffic. This Final Supplemental EIS responds to public comments on the Draft Supplemental EIS and provides supplemental information.

Project Proponent: **Washington State Department of Transportation**
Olympic Region

SEPA

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Responsible Official: **Megan White, Director of Environmental Services**

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Proposed Implementation Date

This phase is currently scheduled to begin Advertisement for bids in the summer of 2013. This phase will be built using the design-build project delivery method and construction will last approximately two years.

Required Permits, Approvals and Licenses

U.S. Army Corps of Engineers

- **Section 404 Permit**

Office of Archeology & Historic Preservation

- **Section 106**

Washington State Department of Ecology

- **Certification of Consistency with Coastal Zone Management**
- **Clean Water Act Section 401 Water Quality Certification**
- **NPDES Permit**

Washington State Department of Fish and Wildlife

- **Hydraulic Project Approval**

Pierce County/City of Puyallup

- **Critical Areas Ordinance**
- **Shoreline Substantial Development Permits**
- **Noise Variance**

Authors and Principal Contributors

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Project Schedule

Date of Issue of Draft Supplemental EIS	**Jan. 7, 2013**
Date Comments Due	**Mar. 15, 2013**
Issue Final Supplemental EIS	**Jul. 16, 2013**

Agency Action and Projected Date for Action

Record of Decision **following issue of Final Supplemental EIS**

Additional Documentation

The Draft Supplemental EIS contains a Summary that will be available on the project website (http://www.wsdot.wa.gov/projects/sr167/puyallupriverbridge/). The complete Draft Supplemental EIS and support materials, including all Discipline Reports will also be available for review at:
6639 Capitol Blvd, Suite 302, Tumwater, WA 98501
360-570-6701, Fax# 360-570-6697. Please call for an appointment.
Copies of the Draft Supplemental EIS and related technical studies can be obtained from:

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Telephone (360) 357-2605

Cost

The cost of the combined Final Supplemental EIS and ROD is $35.00 ($2.25 for a CD), which does not exceed the cost of reproduction.

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Americans with Disabilities Act (ADA) Information

If you would like copies of this document in an alternative format – large print, Braille, cassette tape, or on computer disk, please call (360) 705-7097. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice 1-800-833-6384, and ask to be connected to (360) 705-7097.

Title VI

WSDOT ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT's Title VI Program, you may contact the Department's Title VI Coordinator at (360) 705-7098.

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Exhibits

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Abbreviations and Acronyms

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
AHS	Archaeological and Historical Services
APE	Area of Potential Effects
BA	Biological Assessment
BMP	Best Management Practice
BO	Biological Opinion
CAA	Clean Air Act (Federal), 42 USC Section 7901
CAC	Citizens' Advisory Committee
CAVFS	Compost Amended Vegetated Filter Strip
COE	United States Army Corp of Engineers
CWA	Clean Water Act, 33 USC Section 1251
DAHP	Department of Archaeology and Historic Preservation
DEIS	Draft Environmental Impact Statement
DSEIS	Draft Supplemental SEIS
DPS	Distinct Population Segment (USFWS)
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit (NOAA-Fisheries)
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FONSI	Finding of No-Significant Impact - (NEPA)
HAER	Historic American Engineering Record
HPA	Hydraulics Project Approval
LTAA	Likely to Adversely Affect (ESA)
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act of 1969
NMFS	National Marine Fisheries Service (AKA: NOAA Fisheries)
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHWM	Ordinary High Water Mark or line
PRBR	Puyallup River Bridge Replacement project
PSRC	Puget Sound Regional Council
ROD	Record of Decision (NEPA)
RRP	Riparian Restoration Proposal
RPZ	Runway Protection Zone
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SPL	Sound Pressure Level
SPCC	Spill Prevention, Control, and Countermeasures
SR	State Route
TESC	Temporary erosion and sedimentation control
THPO	Tribal Historic Preservation Officer
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WSDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation

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Executive Summary

Introduction

The State Route (SR) 167, Puyallup River Bridge (167/20E) replacement, which is a small component of the larger SR 167, Puyallup to SR 509 project, has recently been funded. The legislature has mandated the design build process for delivery of this phase. The SR 167 Puyallup River Bridge is also called the Meridian Street Bridge. This Final Supplemental Environmental Impact Statement (EIS) has been prepared for this work because this bridge has become eligible for listing in the National Register of Historic Places (NRHP). At the time the original EIS was completed, the Meridian Street Bridge was not NRHP eligible.

The Washington State Department of Transportation (WSDOT) and Federal Highway Administration (FHWA) proposed the SR 167, Puyallup to SR 509 Project. The SR 167, Puyallup to SR 509 Project is located in Pierce County, Washington, within the Cities of Fife, Puyallup, Edgewood, Milton and Tacoma. The Final EIS for this project was completed in November 2006 (2006 Final EIS) and Record of Decision (ROD) issued in October 2007. There was no construction funding available to construct the project at that time. WSDOT received funding for engineering and to purchase right of way through June 30, 2011. WSDOT has acquired 103 properties that comprise 70% of the corridor right of way, and received additional funds in 2012 to continue with acquisition.

What is the purpose of the SR 167, Puyallup River Bridge Replacement project and why is it needed?

The SR 167, Puyallup River Bridge Replacement project is an integral part of the larger SR 167, Puyallup to SR 509 project. The funding of this bridge replacement project has been expedited because severe corrosion of the steel members and delamination of the concrete floor beams and piers were noted during routine inspection. Due to the magnitude of deterioration of the structure, WSDOT implemented a load restriction requiring vehicles larger than 10,000 pounds gross vehicle weight to use the right lane only. The project will also help to reduce maintenance costs due to deterioration of the structure. The original purpose and need of the SR 167, Puyallup to SR 509 project is to improve regional mobility on the transportation system to serve multimodal local and port freight movement and passenger movement between the Puyallup termini of SR 167, SR 410, and SR 512 and the Interstate 5 (I-5) corridor and to the Port of Tacoma.

Who is directing the project?

FHWA and WSDOT are co-lead agencies. They guide the environmental review oversight and roadway design guidance.

Will there be any change in design for the bridge from the 2006 Final EIS?

The change will be that a new two-lane bridge will be constructed to the west of the existing concrete bridge, instead of at the current location of the steel truss bridge. The existing two-lane concrete bridge will be retrofitted to handle northbound traffic and the new bridge will handle southbound traffic. By changing the position of the new bridge, the current design will have significant environmental and cost benefits which are as follows:

- Elimination of the need for a detour structure east of the historic steel bridge, since the new two lane bridge could be built *off line*.
- Elimination of any impacts to the roads accessing the business northeast of the bridge.
- Reduced permanent impacts to right of way by constructing a retaining wall to preserve the parking lot southwest of the bridge.
- Project duration will be reduced, minimizing impacts to traffic and the environment.

- Reduces the risk of future design and/or constructability issues by building a new two-lane southbound bridge as opposed to building two lanes of a future five-lane northbound bridge.

Once funding is available to complete the SR 167, Puyallup to SR 509 project, the two-lane northbound bridge will be removed to make way for the ultimate configuration of a five-lane northbound bridge that was detailed in the 2006 Final EIS.

When would the project be constructed?

The SR 167, Puyallup River Bridge Replacement project is currently scheduled to be advertised for bids in the summer of 2013. This project will use a design-build contract and construction will last approximately two years.

What are the environmental consequences of the project?

The analyses presented in this Final Supplemental Environmental Impact Statement cover the environmental issues and effects that are different from the 2006 Final EIS. The Meridian Street Bridge design changes affect archaeological and historic resources, fish and water resources. There will be no additional effects to other resources with this phase as compared to the 2006 Final EIS.

The changes in effects are as follows:

Fish – Two federally protected fish species, and their critical habitat, were described in the 2006 Final EIS because they could potentially occur in the project area: Puget Sound Chinook, and bull trout. Since that time, two additional fish species present in this area were listed as threatened or endangered under the Endangered Species Act (ESA): Puget Sound steelhead, and southern distinct population segment of Pacific Eulachon. Eulachon are unlikely to be present in the project area. The proposed project may affect Steelhead and is *likely to adversely affect* individual juveniles and adults. An update to the ESA Section 7 Biological Assessment will be done and concurrence from the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) will be obtained. Proposed design changes will not change the determination of *adverse affect* on Essential Fish Habitat.

Water Resources – The water resources impacts are consistent with the impacts which were discussed in the 2006 Final EIS. The placement of the bridge on the west side of the existing bridges will eliminate the need for a detour structure east of the historic steel bridge, which will reduce the impact due to in-water work. Replacement of the steel bridge will require in-water work trestle and one pier will be located in the Puyallup River. Construction work below the ordinary high water mark is expected to include work in the water due to placement of temporary piles, permanent piers, bridge installation and placement of quarry spalls. This will be done under the requirements of the Hydraulic Project Approval permit as issued by the Washington Department of Fish and Wildlife (WDFW) and the Section 404 permit issued by the U.S. Army Corps of Engineers.

Archaeological and Historical Resources – The area of potential effects to archaeological and historic resources has been changed from the 2006 Final EIS, to include all additional areas of disturbance associated with the proposed new bridge design. This includes potential indirect visual or audible effects. The SR 167 Puyallup River steel truss (Meridian Street) bridge is now eligible for listing in the NRHP. Both the 2006 Final EIS design and the proposed design require removal of this bridge, which is now an adverse effect under Section 106 of the National Historic Preservation Act (NHPA) and Section 4(f) of the Department of Transportation Act of 1966. WSDOT and FHWA have completed a Memorandum of Agreement (MOA) that mitigates adverse effects to the Meridian Street Bridge. The impacts will be mitigated as agreed upon with state and federal resource agencies. The details on the bridge and proposed mitigation can be found in Chapter 5 and in Appendix B.

Section 4(f) Resources – The historic bridge is a Section 4(f) resource as well as a historic resource. The draft addendum to Section 4(f) evaluation was prepared, has been updated and is being circulated for comment. This report is available as an appendix. **(Appendix B)**

What mitigation is proposed for this project?

In addition to mitigation measures discussed in the 2006 Final EIS, the SR 167, Puyallup River Bridge Replacement project will include mitigation for the removal of the historic bridge. An Amended Memorandum of Agreement (MOA) was completed on May 6, 2013 and mitigation measures for the adverse effect on the Meridian Street Bridge are stipulated. The stipulations in the MOA include:

- WSDOT will complete Level 2 Historic Engineering Record documentation and video documentation of the Puyallup River Bridge #167/20E (Meridian Street) steel truss and make the HAER report and video available via a web site dedicated to the historical documentation of the bridge.
- WSDOT is negotiating with King and Pierce Counties regarding the potential for use of the Puyallup River steel truss bridge on the Foothills Trail between Enumclaw and Buckley across the White River.
- WSDOT will remove the steel truss from its current location and move it to the adjacent proposed alignment for the SR 167 freeway extension. WSDOT will then make any necessary repairs to the steel truss to assure structural integrity and secure the structure for storage until it can be relocated to the White River, or an alternate location, until 2019.
- WSDOT, King and Pierce Counties, and the cities of Enumclaw and Buckley will continue to seek funding and grant opportunities to close the funding gap between the cost for reusing the steel truss and constructing a new pedestrian bridge.
- If the grant applications are successful in providing the necessary funds to preserve the Puyallup River steel truss as a part of the Foothills Trail, King and Pierce Counties will enter into an MOU that will identify ownership and long term maintenance responsibilities. In the event it is not economically feasible to reuse the steel truss bridge for the Foothills Trail, WSDOT will, in consultation with SHPO and interested consulting parties, prepare a Bridge Marketing Plan for advertising the availability of the bridge for preservation at an alternate location utilizing the video documentation and web site completed per stipulations in the MOA. WSDOT will actively seek an alternate preservation site for the bridge until June 2019. WSDOT will dispose of the steel truss if, after June 2019, no preservation sites or reasonable and sufficient funding sources have been successfully identified for the permanent preservation of the bridge.

Did the public have input on this project?

Extensive consultation with the public and interest groups was conducted during the EIS process. The information is available in Chapter 1 of the SR 167, Puyallup to SR 509 2006 Final EIS. WSDOT created a webpage for the SR 167, Puyallup River Bridge Replacement project in November 2011 that provided information about the project and contact information for the design office. The project webpage is updated every month to highlight progress on the project.
(http://www.wsdot.wa.gov/projects/sr167/puyallupriverbridge/)

WSDOT has initiated consultation with the public and interested parties for the Meridian Street Bridge under Section 106 of the NHPA. Because of its historic significance, WSDOT and FHWA have pursued ways to preserve the Meridian Street Bridge even though it will need to be removed from its present location. An MOA developed in consultation with tribes, local and state agencies and other interested parties stipulating the measures that will be taken to achieve this proposed preservation was signed in May 2012. WSDOT and FHWA will continue consultation with interested parties in order to seek ways to minimize, or mitigate adverse effects to the Meridian Street Bridge that would result from the Puyallup River Bridge Replacement project.

WSDOT provided the Draft Supplemental EIS to the public and agencies for their comments. The Draft Supplemental EIS was made available in Pierce County offices and libraries for review by the public and all interested parties. Comments received on the Draft Supplemental EIS have been noted and all substantive comments on the Draft have been addressed in this Final Supplemental EIS or in a response to the party which submitted the comment. WSDOT will continue to meet with any interested parties to resolve any environmental issues that may occur during final project design and construction.

Have the tribes and other agencies been involved in this project?

WSDOT staff will coordinate directly with agencies that are responsible for issuing environmental permits for the SR 167, Puyallup River Bridge project. These agencies include the U.S. Army Corps of Engineers, NMFS, USFWS, the Washington State Department of Ecology, WDFW, Pierce County and the City of Puyallup.

Consultation with the Puyallup Tribe was conducted through the 2006 Final EIS process. At that time, a Section 106 MOA was developed in consultation with the Puyallup Tribe and other consulting parties.

Four tribes, (Muckleshoot, Puyallup, Squaxin Island and Yakama Nation) whose area of interest includes the project area, were informed in January 2012 about this phase and were given an opportunity to comment on the area of potential effects. No comments have been received to date.

An updated cultural resources survey report was completed for the project on August 2, 2012 and has been sent to all the tribes of interest and to the Department of Archaeology and Historic Preservation for comments. The Section 106 MOA was updated (May 2013) in consultation with tribes, agencies and other interested parties as a mitigation measure for the *adverse effect* on the Meridian Street Bridge.

During construction, WSDOT will make contact with both the Pierce County Sheriff and the Washington State Patrol, and other local emergency services, and do everything possible for smooth running of traffic.

WSDOT will continue to meet with regulatory agencies and tribes to resolve any environmental issues that may occur during project design and construction.

What happens next?

Puyallup River Bridge Replacement
This phase is currently scheduled to begin Advertisement for bids in the summer of 2013. This phase will be design-build and construction will take about two years.

Section 106 Mitigation
WSDOT will work with King and Pierce Counties to seek funding and grant opportunities to reuse and preserve the historic steel truss bridge. The success of this effort will determine if there is sufficient funding to close the gap between constructing a new pedestrian bridge and reusing the steel truss for a pedestrian crossing over the White River as a part of the Foothills Trail connecting Pierce and King Counties.

Phased Construction
The SR 167, Puyallup River Bridge Replacement project is a small component of the larger SR 167, Puyallup to SR 509 Extension project. As funding becomes available, additional right of way will be purchased for the project corridor and future phases of the project will be constructed.

How can I learn more?

WSDOT maintains project webpages for the SR 167, Puyallup River Bridge Replacement project and the SR 167, Puyallup to SR 509 Extension project:

- http://www.wsdot.wa.gov/projects/sr167/puyallupriverbridge/
- http://www.wsdot.wa.gov/projects/sr167/tacomatoedgewood/

If you have further questions about the SR 167, Puyallup River Bridge Replacement project please contact:

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Chapter 1 - Introduction

The Washington State Department of Transportation (WSDOT) and Federal Highway Administration (FHWA) proposed the State Route (SR) 167, Puyallup to SR 509 Extension project. The SR 167, Puyallup to SR 509 Extension project (hereafter referred to as the *167 Extension project*) is located in Pierce County, Washington, within the Cities of Fife, Puyallup, Edgewood, Milton and Tacoma. The environmental analysis for this project was completed in two tiers (stages). The Tier I Environmental Impact Statement (EIS) analyzed the location and environmental aspects of different corridor options and selected the environmentally preferred corridor. The Tier II EIS selected the preferred alignment within the corridor and the interchange configuration. The 167 Extension project includes an interchange between SR 167 and SR 161, just north of the Puyallup River, which necessitates the reconstruction of the Puyallup River Bridges, 167/20E and 167/20W. Since Bridge 167/20E, also known as the Meridian Street Bridge, has been recently determined to be eligible for the National Register of Historic Places (NRHP), the 167 Extension project would have an additional impact to archaeological and historic resources. Therefore the EIS for the 167 Extension project must be supplemented with this information. This Final Supplemental EIS provides updates and additional analyses, and a comparison of impacts and benefits associated with a proposed design change for the Puyallup River crossing aspect of the 167 Extension project.

1.1 What is the Reason for the SR 167 Extension Project?

The 167 Extension project will complete the SR 167 freeway by building four miles of new six-lane freeway from its current terminus in Puyallup at SR 161, through the Puyallup River valley, connecting to Interstate 5 (I-5) near the 70th Avenue undercrossing, and another two miles of four-lane divided freeway from I-5 west to connect to SR 509 near the Port of Tacoma. (**Exhibit 1: SR 167 Extension Project Alignment**) The 167 Extension project will include one direct highway connection, four interchanges, two weigh stations, two park and ride lots, and the reconstruction of the Puyallup River Bridges. The project will also include an innovative stormwater management approach, known as the Riparian Restoration Proposal (RRP), which reduces potential flooding while improving local stream conditions. In addition to important traffic benefits such as increased mobility, improved safety, and accessibility; the SR 167 Extension project will include measures to avoid or minimize impacts, enhance wetlands, connect wildlife habitats, abate traffic noise, and other efforts to protect the environment.

1.1.1 Purpose and Need

The purpose and need for the 167 Extension project is not changed with this Final Supplemental EIS. The purpose and need of the 167 Extension project is to improve regional mobility to serve multimodal local and port freight movement and passenger movement between (1) the Puyallup termini of SR 167, SR 410, and SR 512 and (2) the I-5 corridor, the new SR 509 freeway, and the Port of Tacoma. The existing non-freeway segment of SR 167 has high levels of congestion at surface street intersections and includes many connecting driveways. Trucks transporting freight from the Port of Tacoma and the Puyallup industrial area add to the congestion. These conditions contribute to relatively high accident rates, and increased air pollution from the stop-and-go traffic conditions. In 1999, the Port of Tacoma projected that truck traffic would double to 600,000 trucks annually by the year 2014. Traffic modeling in 2008 and intersection counts in 2011 were analyzed to update traffic forecasts for this Final Supplemental EIS also indicate problems will continue to worsen out to the year 2035. (**See Appendix A**)

The project is intended to reduce congestion and improve safety on the arterials and intersections in the study area, provide improved system continuity between the SR 167 corridor and I-5, and maintain or improve air quality within the corridor to ensure compliance with the current State Implementation Plan and all requirements of the Clean Air Act. Benefits of the proposed project include:

- Reduces congestion
- Improves safety for traffic, pedestrians, and bicyclists
- Improves regional mobility of the transportation system

- Serves multi-modal freight and passenger movement
- Improves continuity between SR 167 and I-5
- Reduces flooded area along local creeks
- Maintains or improves air quality in the corridor
- Improves fish habitat in nearby streams

The Tier II Final Environmental Impact Statement (FEIS) for the 167 Extension project was issued in November 2006, (hereafter referred to as the 2006 FEIS) and FHWA issued the Record of Decision (ROD) in October 2007. While there was not sufficient funding available to construct the project at that time, WSDOT received funding for preliminary engineering and purchase of right of way. Since then, WSDOT has acquired 103 properties, which comprise 70% of the corridor right of way. WSDOT received additional funding to continue with right of way acquisition and preliminary engineering as part of the 2012 legislative supplemental budget. Construction, however, remains unfunded.

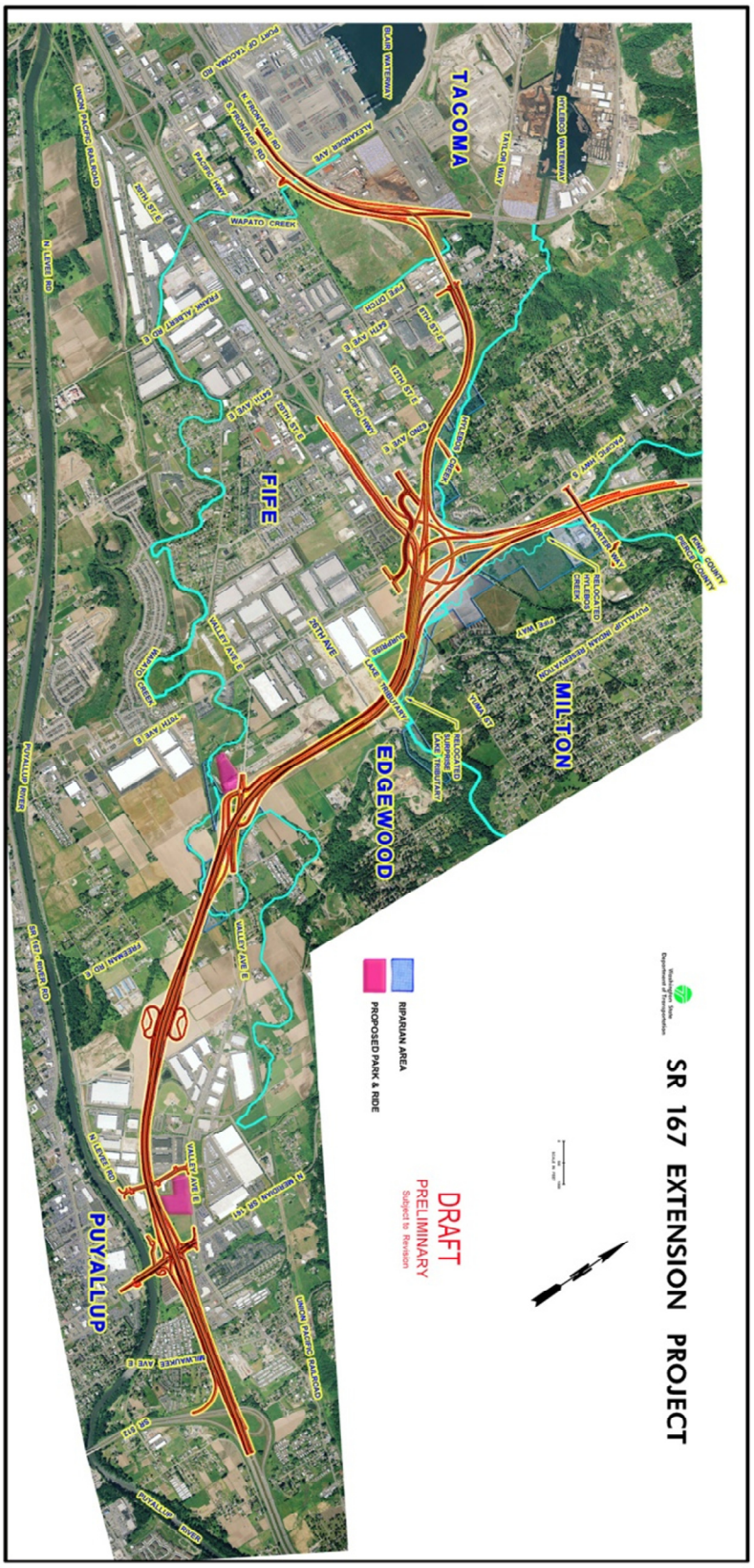

Exhibit 1: SR 167 Extension Project Alignment

1.2 Why is a Supplemental EIS needed?

The SR 167 Puyallup River Bridge Replacement project, which is a small phase of the 167 Extension project, has recently been funded. The Meridian Street Bridge is prioritized on the WSDOT Preservation Program list for Bridge Replacement during the 2013-2015 biennium, when the Legislature made the bridge a priority by funding the project for the 2011-2013 biennium. The legislature has mandated the design-build process for delivery of this phase, hereafter referred to as the Puyallup River Bridge Replacement project (PRBR). To prepare this phase for the design-build project delivery method, WSDOT reviewed the design and environmental documentation, and noted the conditions that have changed since the 2006 FEIS was completed. During recent inspections, the Meridian Street Bridge was determined to be eligible for listing on the NRHP. While it had been determined not to be eligible in 2006, the bridge is now eligible for the NRHP. The replacement of this bridge will be an *adverse effect* on a historic resource, which must now be added to the list of effects. The 2006 FEIS for the 167 Extension project must be supplemented with this information. Also, the design for the Puyallup River crossing as part of the 167 Extension project has been modified in response to this finding, and all environmental aspects of the changed design need to be evaluated. The design changes are detailed in Chapter 2, *Puyallup River Crossing Design Changes*.

1.3 What is included in this document?

This document and the attached discipline reports supplements the 2006 FEIS by describing the impacts expected from revised design of the Puyallup River crossing portion of the Extension project. Each category of potential environmental impact presented in the 2006 FEIS was reviewed to determine the potential for impacts and benefits that would be different from those reported in the FEIS. This Final Supplemental EIS presents only the information and analyses that were determined to be pertinent to the differences associated with the proposed Puyallup River crossing design changes:

- Archaeological and historic resources
- Threatened and endangered species
- Water resources
- Traffic

This document also describes the current proposed construction project, the Puyallup River Bridge Replacement project, which would construct a portion of the ultimate river crossing design. This phase would construct a new bridge for southbound lanes, and temporarily move the northbound lanes to bridge 167/20W. It would then remove the Meridian Street Bridge. The deteriorating condition of the Meridian Street Bridge has made this construction project critical.

Climate Change

WSDOT, in coordination with federal agencies, has developed guidance to address greenhouse gas emissions and climate change since the 2006 FEIS was issued. WSDOT's approach is consistent with draft guidance from the White House Council on Environmental Quality for analyzing project level greenhouse gas emissions and considering future climate change impacts. Section 3.8.1 of this document has further discussion of project design changes and adaptations to climate change.

1.4 What is not included in this document?

The following categories of potential environmental impacts are not discussed further in this document, since they are either not present in the Puyallup River crossing study area, or there are the same effects with the design revision presented in the 2006 FEIS.

The minor revision in alignment of the bridge replacement and traffic pattern for the Puyallup River crossing does not warrant an update to the analyses for the following:

- Air Quality

- Noise
- Energy
- Hazardous Materials
- Visual Quality
- Public Services and Utilities
- Land Use
- Wetlands
- Farmland
- Displacement
- Pedestrian and Bikes

Environmental Justice:
The 2006 FEIS discussed environmental justice issues in Chapter 3 (3.11.3). Based on the analyses performed, the project was not expected to disproportionately impact minority and/or low-income populations within the project area, and project impacts were not considered to be high and adverse after proposed mitigation measures were implemented. The proposed design revisions for the Puyallup River crossing will not change the overall SR 167 Puyallup to SR 509 Extension project impacts on minority populations or low-income populations.

1.5 Who will lead the project?

FHWA is the lead federal agency for the project, providing guidance and oversight to WSDOT. WSDOT is the non-federal lead for the supplementary environmental analysis phase.

1.6 How is the public involved?

The public was involved in the SR 167, Puyallup to SR 509 Extension project in the Tier I EIS and the Tier II EIS processes through public meetings, newsletters, e-mail notifications, project websites and open houses. The Citizen's Advisory Committee was formed to assist in recognizing local issues and concerns. The project team frequently made presentations to Chambers of Commerce, business associations and civic organizations. The 2006 FEIS summarizes the public involvement in the Tier I and Tier II processes.

The public was invited to review and comment on the SR 167, Puyallup River Bridge Replacement Draft Supplemental EIS. The input from the public will be carefully considered in agency decision making.

Opportunities for the public to learn about current and future project developments include:
- Project Web site: http://www.wsdot.wa.gov/Projects/SR167/PuyallupRiverBridge
- E-mails and telephone
- Project meetings with individuals and groups
- Project meetings with agencies and Tribes

1.7 What is the expected schedule and cost for the proposed construction project?

The preliminary engineering for the PRBR project is scheduled to be complete by the summer of 2013. The next phase of the project will be obtaining environmental permits which will be completed by the fall of 2013. The bridge design will begin in the late summer of 2013 and be complete by the summer of 2014. Construction will begin in the summer of 2014 and be complete by the fall of 2015. The PRBR project is currently funded and will cost approximately $30 million for design, environmental analyses and mitigation, right of way, and construction.

1.8 What permits or approvals are needed before beginning construction?

Federal Agencies

- National Marine Fisheries Service (NMFS) & U.S. Fish & Wildlife Service (USFWS) - Endangered Species Act consultation
- U.S. Army Corps of Engineers (COE) - Nationwide Permit

State Agencies

- WA Department of Archaeological & Historical Preservation (DAHP) - Section 106 Concurrence
- WA Department of Ecology (WSDOE) - Section 401 Water Quality Certification, Section 402 National Pollutant Discharge Elimination System (NPDES) Permit, & Coastal Zone Management Certification
- WA Department of Fish & Wildlife (WDFW) - Hydraulic Project Approval

Local Agencies

- Pierce County - Critical Area Ordinance Review, Flood Plain Development Permit & Shoreline Substantial Development Permit

1.9 What information is provided in the remainder of this document?

- Chapter 2 – Puyallup River Crossing Design Changes: *Details the design changes proposed for the Puyallup River crossing.*
- Chapter 3 – Affected Environment, Impacts and Mitigation: *Details the potential benefits, environmental impacts, and mitigation associated with the proposed Puyallup River crossing design that is different from the previous design.*
- Chapter 4 – Public Agency and Tribal Coordination: *Details past consultations with regulatory agencies and interested parties through the 2006 Final EIS, and continuing consultations for this Supplemental EIS.*
- Chapter 5 – Section 4(f) Evaluation: *Details the Section 4(f) Evaluation of the Meridian Street Bridge.*

Appendices:

A. Discipline Reports and List of Preparers
B. Addendum to Section 4(f) Evaluation
C. Biological Assessment
D. Bridge Preliminary Plans
E. Commitment List
F. Circulation List

Chapter 2 –Puyallup River Crossing Design Changes

This chapter describes the previously proposed Puyallup River crossing portion of the SR 167 Extension project, the reasons for changing the design and the proposed new design.

2.1 What is the existing SR 167 Puyallup River crossing?

The existing SR 167 crossing of the Puyallup River is located at mile post 6.40, just outside the City of Puyallup. **(Exhibit 2 & Appendix D – Vicinity Map)** There are two southbound lanes on a concrete bridge constructed in 1970 (WSDOT Bridge number 167/20W), and two northbound lanes on a steel truss bridge, built in 1925 (WSDOT Bridge number 167/20E), known as the Meridian Street Bridge. **(Exhibit 3 – Aerial View of Existing SR 167 Puyallup River Bridges)** The Meridian Street Bridge is 371 feet long, with traveled lane widths of 21 feet from curb-to-curb, and has a 5-foot wide wooden sidewalk structure attached along the east side.

Exhibit 2 – SR 167 Historic Bridge

2.2 What design for the Puyallup River crossing was identified in the 2006 FEIS?

The preferred alternative for the SR 167 Puyallup River crossing as presented in the 2006 FEIS entailed removing the Meridian Street Bridge and constructing a new five-lane northbound bridge in its place. At the time, there was only a preliminary design for the new structure. The configuration of five-northbound lanes was determined necessary to safely allow traffic to weave into the correct lane as it approaches the proposed SR 167/SR 161 interchange. The proposal also included a small taper widening, and seismic retrofit on the existing southbound 1970 bridge. The construction strategy would require the use of a detour structure on the east side of the Meridian Street Bridge. Traffic would be shifted off of the Meridian Street Bridge onto the temporary structure, and the Meridian Street Bridge would be removed. Then the new five-lane northbound bridge would be constructed, and the temporary structure would be removed. The final stages would be the seismic retrofit of the 1970 bridge, and the taper widening on its north end to match into the proposed SR 161/167 Interchange.

This design was supported by two key decisions. The first was that the 1970 bridge could be seismically retrofitted economically. The second was that the access from Levee Road to northbound SR 167 would be terminated in a cul-de-sac, and a new connection road would be built between Levee Road and Valley Avenue to provide access to the business to the northwest of the bridge. In addition, during a review of historic-era properties for the 2006 FEIS, the Meridian Street Bridge was not eligible for the NRHP.

Exhibit 3 – Aerial View of Existing SR 167 Puyallup River Bridges

2.3 What caused the Puyallup River crossing design to be reconsidered?

The current condition of the Meridian Street Bridge has made replacement of the bridge a priority. During a routine maintenance inspection of the Meridian Street Bridge in January of 2011, extensive floor beam deterioration was detected. Based on this condition, the structure is now rated *structurally deficient*. It was necessary for WSDOT to implement a load restriction on the bridge, requiring vehicles larger than 10,000 pounds gross vehicle weight to use the right lane only. The steel members are exhibiting severe corrosion and the concrete deck and piers are delaminating. **(Exhibits 4 and 5: Examples of deterioration on Meridian Street Bridge)** In addition, the lane and shoulder widths do not meet current standards. With the high volume of truck traffic, this results in frequent damage to the structure.

Exhibit 4 – Example of concrete spalling on Meridian Street Bridge (Note exposed rebar)

Spalling (definition) – To chip or crumble.

Exhibit 5 – Example of rusted beams on Meridian Street Bridge

Exhibit 5 shows severe pack rust between a girder and bottom flange. This example is typical for the bridge, with some areas of pack rust up to 1-1/2" thick.

The following factors led the design team to revise the Puyallup River crossing as part of the 167 Extension project, and develop a construction strategy for the replacement of the Meridian Street Bridge, or the PRBR:

Funding
Replacement of the Meridian Street Bridge was made a priority due to its deteriorated condition, and funding was approved for the 2011-2013 biennium. The PRBR project funding is limited to providing a two-lane structure built to current design standards. Therefore, the Puyallup River crossing design needed to allow for the interim PRBR construction project to function as part of the future 167 Extension project. The limited funding also required the design team to come up with a revised delivery strategy that would reduce the cost and duration of the interim construction project.

Historic Meridian Street Bridge
Recent inspection of the Meridian Street Bridge found advanced deterioration which made replacing it a high priority. It also led to the reassessment of the bridge's historic value, and it was ultimately determined to be eligible for listing on the NRHP. This meant that removing the bridge would be an adverse effect to a historic resource. Under Section 106 of the National Historic Preservation Act, and Section 4(f) of the Department of Transportation Act of 1966, such an affect must be avoided, minimized, or mitigated. This changed condition required the design team to examine alternatives to the Puyallup River crossing design in the 2006 FEIS, which had identified the need for demolition of the Meridian Street Bridge.

Seismic Standards
Since the 2006 FEIS was completed, seismic standards for highway bridges have been revised. When evaluated in light of these changes, it was determined that seismic retrofit of the 1970 bridge would be economically unfeasible. This change required an ultimate Puyallup River crossing configuration that allowed for construction of a new southbound bridge.

2.4 What other factors were considered in developing a new design?

Any revised bridge replacement design needed to connect to the proposed design for the remainder of the 167 Extension project, and accommodate the projected traffic. While two lanes are sufficient for current and future traffic volumes southbound, the northbound bridge will need an additional three lanes to provide necessary traffic capacity, and to safely connect to the proposed SR 167/SR 161 interchange that will be located just north of the bridge. The five northbound lanes will include two left-turn, one through, and two right-turn lanes. In order to allow traffic to weave/merge into the appropriate lanes in advance of the interchange, the new five-lane northbound bridge must be constructed over the footprint now occupied by the historic Meridian Street Bridge. In addition to the issues in Section 2.3, concerns regarding temporary and permanent impacts to the river, to private property and business operations, and to traffic operations, guided the development of a new design. The temporary detour structure which was necessary for the original bridge replacement design in the 2006 FEIS, would result in temporary right of way impacts, and would permanently impact access to the business located immediately northeast of the bridge. The Meridian Street Bridge could not be used for staging materials and equipment during construction because of the limited load capacity and limited clearance. Therefore, in the 2006 FEIS design, a substantial temporary work platform would have been constructed across the river. Those temporary structures would have resulted in temporary impacts to the river, with the installation and removal of pilings and approaches on the shoreline.

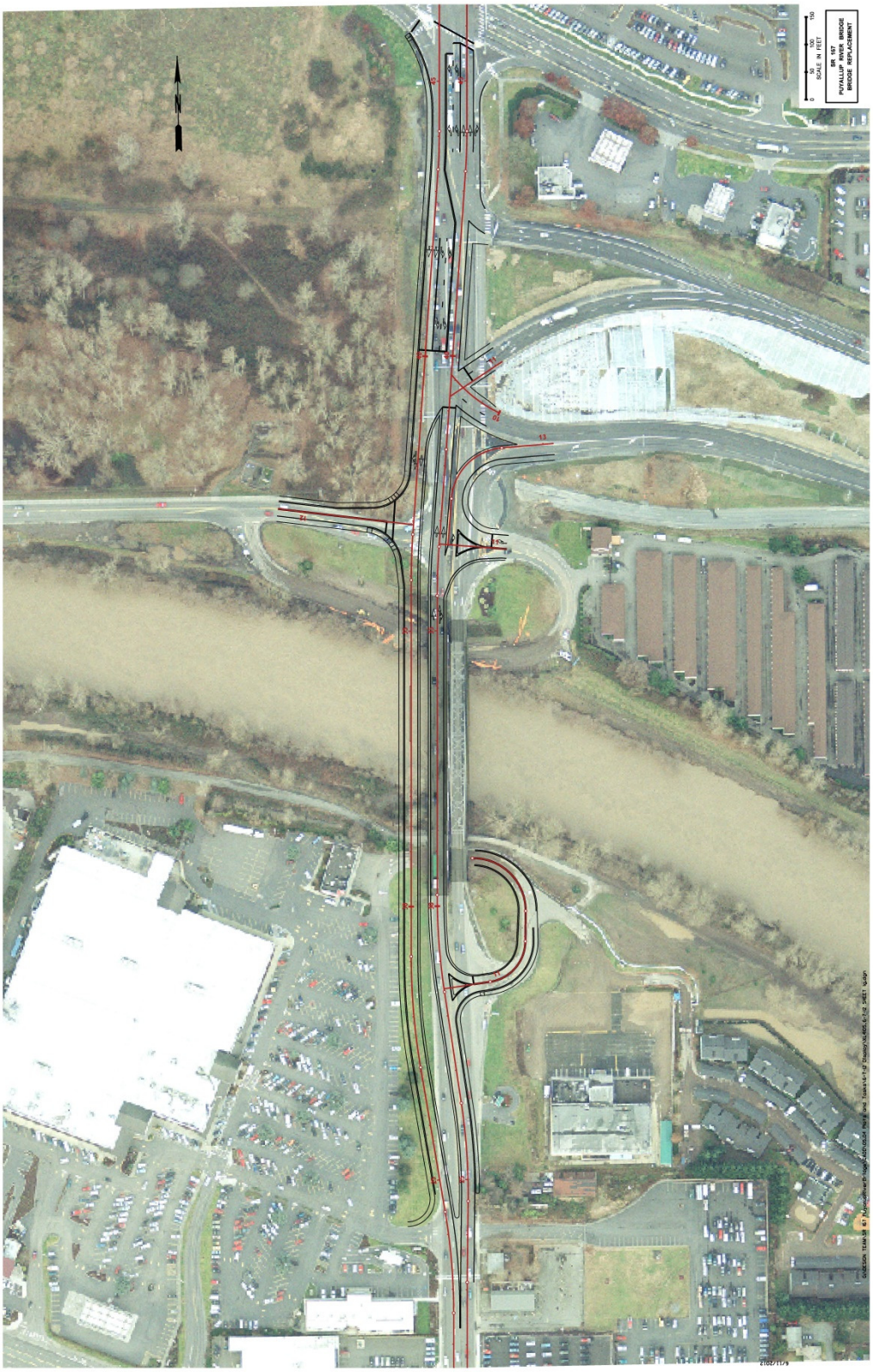

Exhibit 6: Aerial View of Proposed Puyallup River Bridge Replacement Channelization

2.5 What is the proposed revised design and delivery plan for the Puyallup River crossing?

Elements of the proposed revised design for the Puyallup River crossing as part of the 167 Extension project include:

- Reduce southbound traffic to one lane on the existing 1970 bridge.
- The 1970 bridge would then be used to stage materials and equipment for the construction of a new bridge to the west of the 1970 bridge for the southbound lanes. **(See Exhibit 6)**
- A temporary in water work trestle, approximately 30' x 100', would be constructed to build one in water pier for the new bridge.
- The new southbound bridge would have two 12-foot wide lanes, a 2-foot wide shoulder and an 8-foot wide sidewalk next to the outside lane, and a 4-foot wide shoulder next to the inside lane. **(See Exhibit 7)**
- Once the new bridge is completed, northbound traffic would shift to the 1970 bridge and southbound traffic would shift to the new bridge.
- The historic Meridian Street Bridge would then be removed along with the temporary work trestle.
- The 1970 bridge would be modified for interim use for two lanes of northbound traffic, by removing sidewalk, and removing and replacing traffic barriers, and re-striping lanes. **(See Exhibits 8 & 9)**
- The two northbound lanes are adequate until the SR 167/SR 161 Interchange is constructed as part of the larger 167 Extension project.
- Approach roads will be realigned to accommodate the new traffic pattern in this short segment.

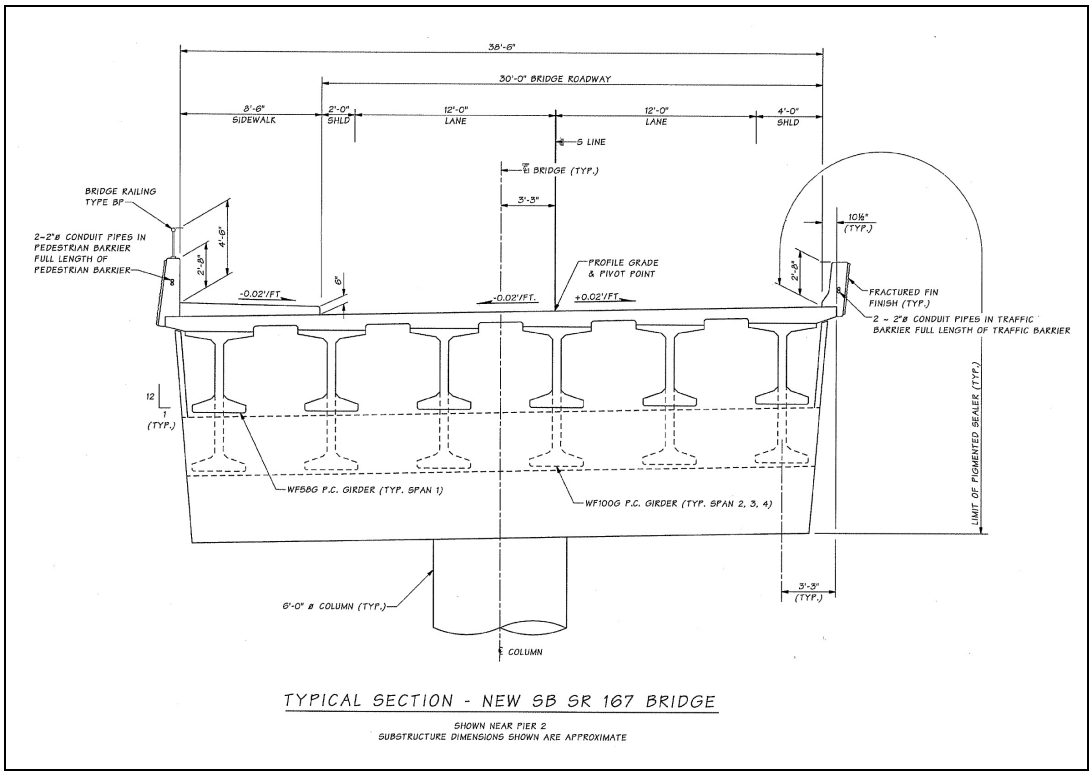

Exhibit 7 – Typical Cross Section of Proposed New SR 167 Southbound Bridge

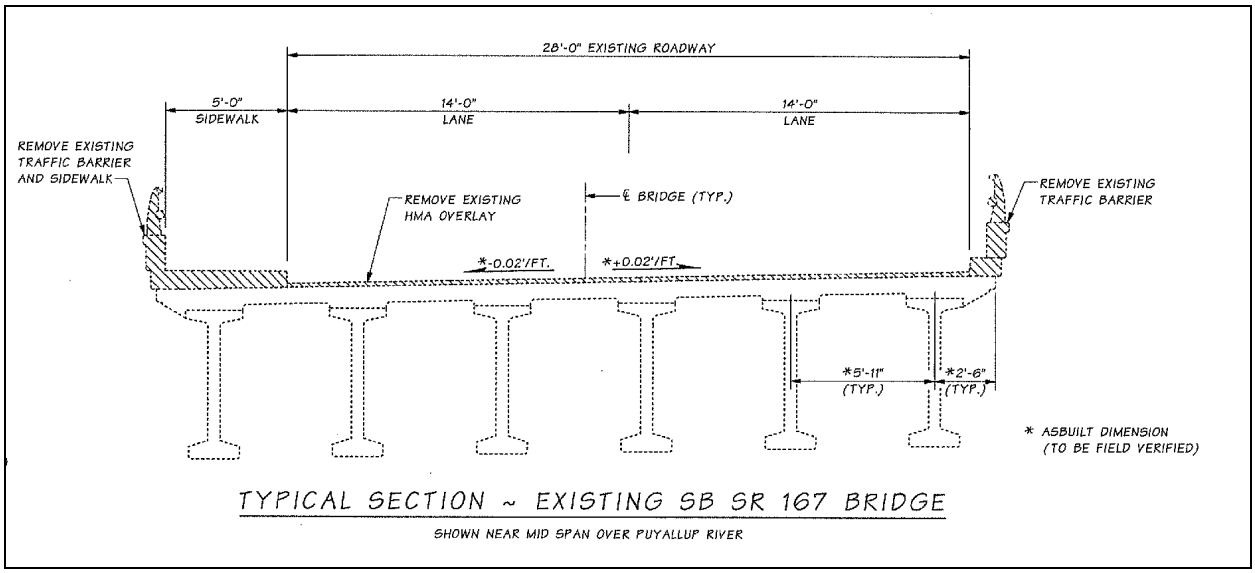

Exhibit 8 – Cross Section of Existing 1970 Bridge (currently southbound lanes)

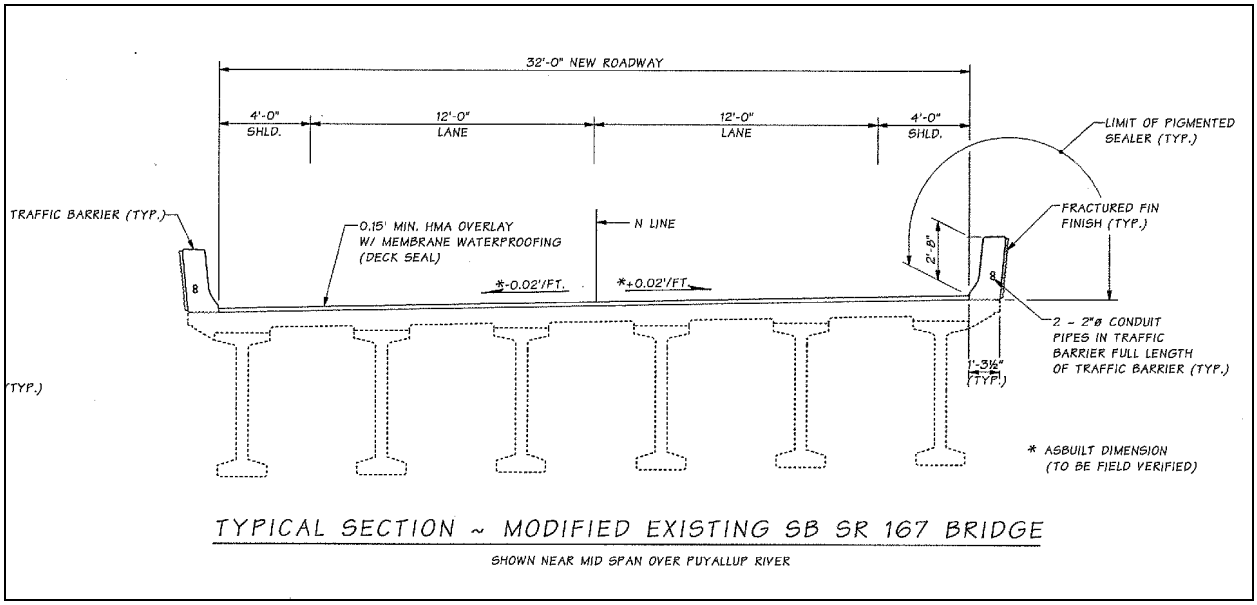

Exhibit 9 – Cross Section of Proposed 1970 Bridge (modified for northbound lanes)

This interim phase is the currently proposed Puyallup River Bridge Replacement project. **(See Exhibit 10 – Completed Proposed Puyallup River Bridge Replacement project.)**

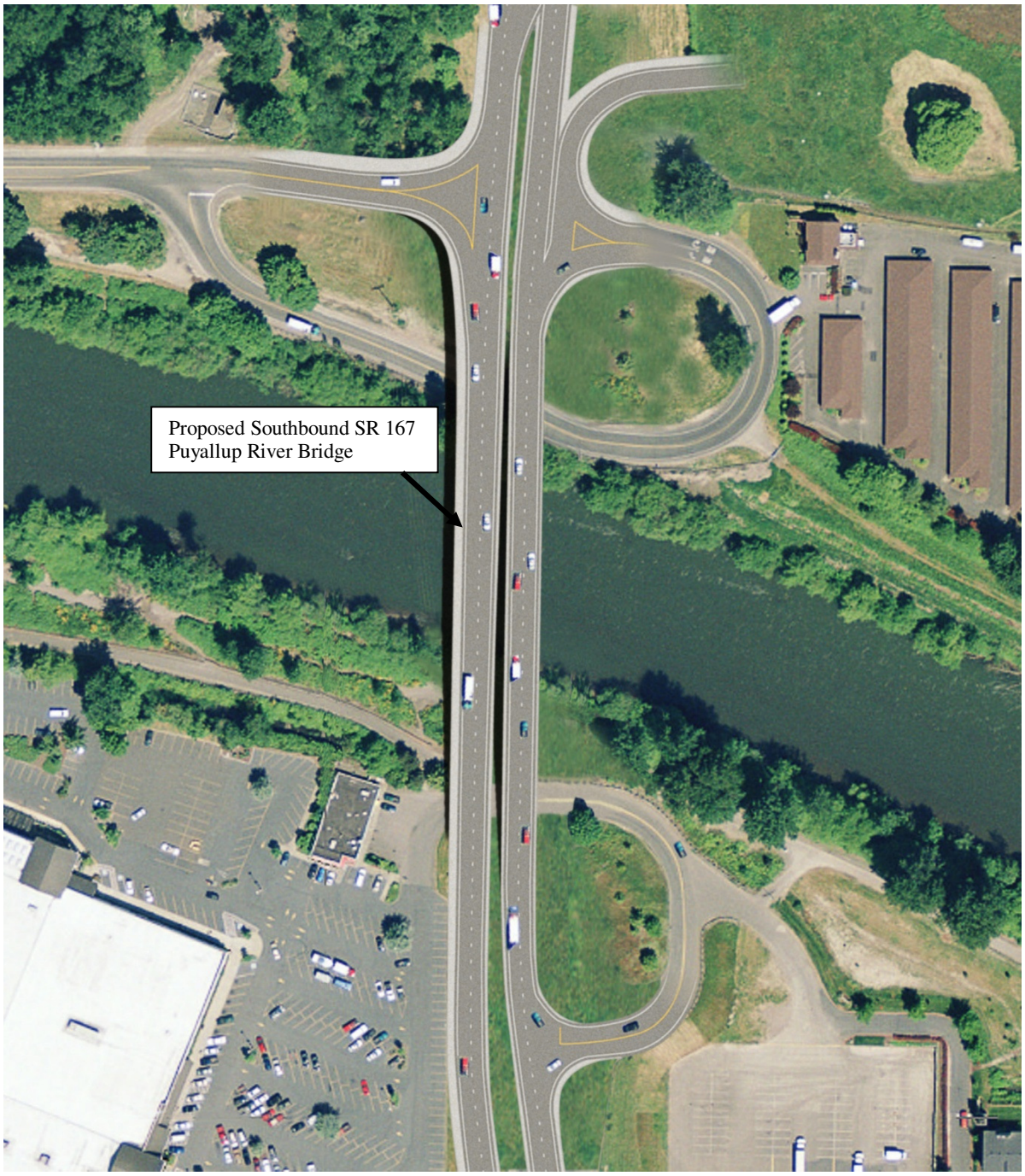

Exhibit 10: Design Visualization of Completed Proposed Puyallup River Bridge Replacement project

Once funding is obtained for completion of the 167 Extension project, the Puyallup River crossing design would be finalized:

- Traffic would first be reduced to one lane in each direction and shifted onto the new bridge west of the 1970 bridge.
- The 1970 bridge would then be used to stage materials and equipment to construct the first two lanes of the proposed five-lane bridge to the east.

- Once the first two lanes of the five-lane bridge are constructed, materials and equipment would be staged there and the 1970 bridge would then be demolished to make room to finish construction of the remaining three lanes of the five-lane bridge.

Exhibit 11 below illustrates the final alignment of the Puyallup River crossing once the 167 Extension project is completed with future funding.

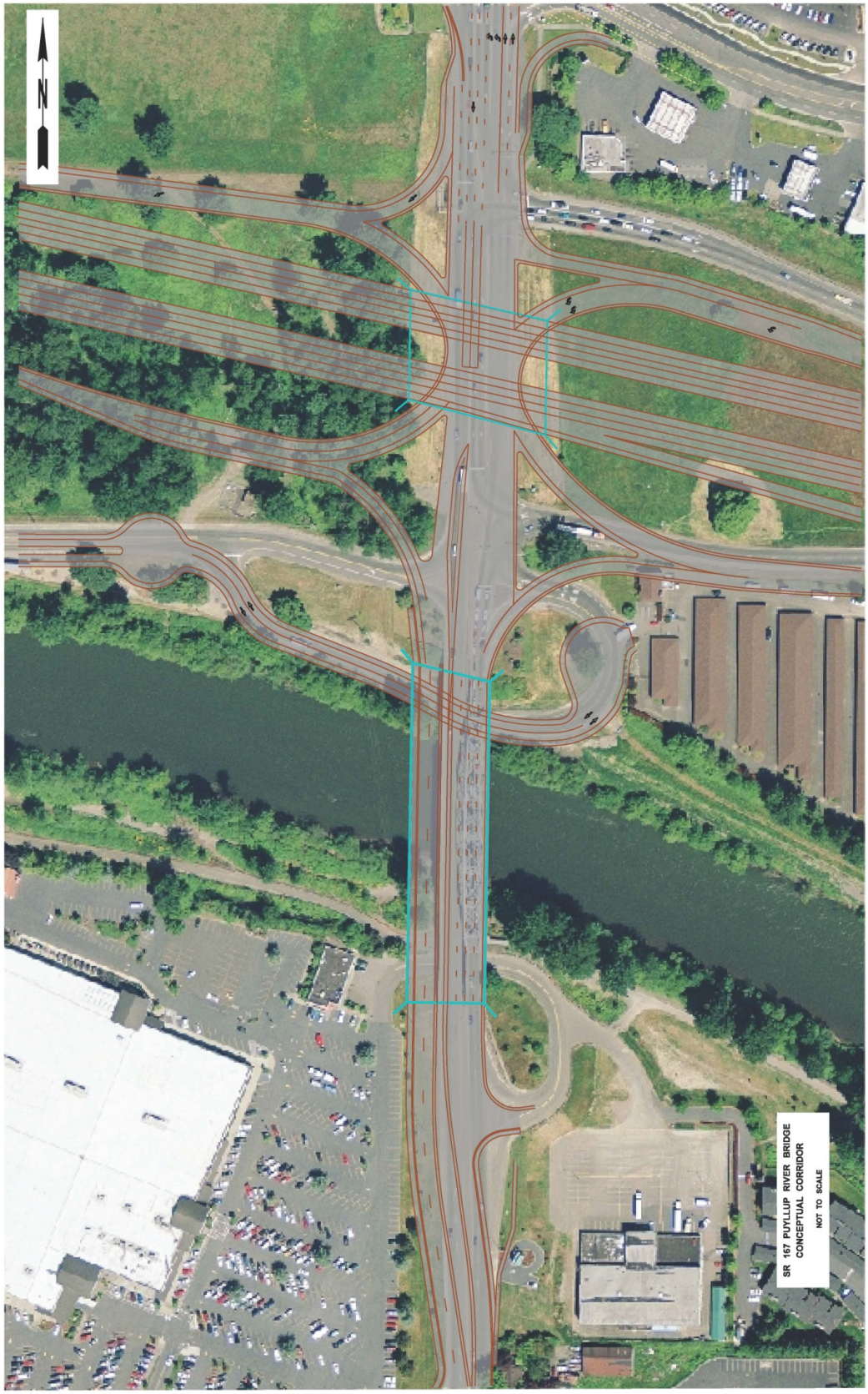

Exhibit 11 – Proposed Final SR 167 Extension Puyallup River Crossing Alignment

2.6 What are the benefits of the proposed revisions to the Puyallup River crossing design?

With the proposed changes to the design and construction plan, the Meridian Street Bridge will not need to be demolished in order to initiate construction. This will allow more time for WSDOT to finalize plans or advertise the availability of the historic steel truss structure for use off site and preserved as a part of a pedestrian and bicycle trail system.

Shifting the crossing structures to the west removes the impact to roads accessing the business northeast of the bridge, and allows for the preservation of the parking lot southwest of the bridge, with the construction of a retaining wall.

The proposed PRBR design will serve existing traffic, and will better accommodate the ultimate configuration of the proposed SR 167/SR 161 interchange and proposed five-lane northbound bridge of the 167 Extension project. When funding becomes available to complete the 167 Extension project at a later date, construction crews will be able to utilize the footprint of the Meridian Street Bridge to construct the first two lanes of the five-lane northbound bridge. By building a new two-lane southbound bridge as a part of the PRBR project as opposed to building two lanes of a future five-lane northbound bridge, the risk of future design and constructability issues are reduced. If the proposed PRBR project constructed only two lanes of a future five-lane northbound bridge, the design would have to be compatible with expansion to a future five-lane configuration. Widening a structure often presents design and constructability challenges, in addition to managing the ongoing revisions to structural design standards and changes to seismic code. The proposed PRBR design is the best solution with the current preservation funding, in terms of engineering feasibility, traffic operation, and environmental impacts.

Chapter 3 – Affected Environment, Impacts & Mitigation Measures

Roadway projects can potentially affect the natural environment (wetlands, vegetation, fish and wildlife, etc.), the built environment (residential areas, businesses and supporting infrastructure such as roads and services), and the social and economic conditions of an area. This chapter discusses those areas relevant to the Puyallup River crossing design revisions, the PRBR project, any changed conditions from the time of the 2006 FEIS, and the measures to be taken to mitigate adverse impacts.

3.1 How are environmental effects considered?

The following aspects of relevant potential environment effects are considered:

- **Direct temporary or short term** – These effects are typically related to a construction activity and go away when the construction activity stops.
- **Direct permanent or long term** – These effects are more lasting and are associated with the completed project. These effects are often called operational effects because they are associated with the opening and operation of the roadway.
- **Indirect** – Also known as secondary impacts, indirect effects are caused by the project and occur at a later time or some distance from the project.
- **Cumulative** – These are incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions.

3.2 What are mitigation measures?

Using mitigation measures is a way for a project to lessen the effects and impacts of the Proposed Action. When impacts are unavoidable, we evaluate ways to compensate for these impacts. For example, compensating for unavoidable impacts such as wetland fill impacts or stream buffer clearing often means that a project will propose to enhance, restore, or create these important features somewhere else.

3.3 What types of environmental impacts are evaluated in this Final Supplemental EIS?

This document supplements the 2006 FEIS by evaluating the environmental impacts associated with the PRBR as part of the 167 Extension project. The following resources were determined to be relevant to the changed conditions and revised design of the bridge replacement:

- Archaeological and Historic Resources (Section 106, and Section 4(f))
- Threatened and Endangered Species
- Water Resources
- Traffic

These aspects of the project are summarized in this document, and corresponding discipline reports or other supporting documentation is attached.

3.4 Archaeological and Historic Resources

Federal regulations, particularly Section 106 of the National Historic Preservation Act of 1966 and Section 4(f) of the Department of Transportation Act of 1966, require identification and evaluation of historic properties, including archaeological sites, within the Area of Potential Effect (APE) of proposed federally aided or sponsored projects. Projects must make every effort to avoid impacts to properties or sites that are listed, or are eligible for listing, on the National Register of Historic Places. A cultural resources survey and report is performed, which seeks to identify archaeological and historic resources within the project APE, assesses any identified cultural or historic resources, and recommends measures for avoidance, or minimization of impacts to these resources. If impacts cannot be avoided, the report recommends mitigation measures.

3.4.1 How is the Area of Potential Effects different?

The APE defined for the 167 Extension project did not encompass the entire area that will be affected by the revised river crossing design of the PRBR project. WSDOT defined the APE for the 167 Extension project to include an area of direct effects within a 200 foot offset on either side of the proposed highway centerline, as well as any additional right of way required for interchanges, stormwater facilities and mitigation sites. The vertical extent of this area of potential direct effects was considered to be three feet. The APE also included an additional 200 foot offset, extending 400 feet from either side of the centerline, to account for potential indirect visual or audible effects.

WSDOT has revised the horizontal and vertical APE, for the supplemental survey, to include the revised bridge alignment to the west of the 1970 bridge. The APE encompasses all areas where ground disturbing activities associated with the proposed new bridge would occur, four feet deep in general, extending to 100 feet deep at the bridge abutment areas. The APE also includes the area within which the historic bridge and adjacent historic structures may be directly or indirectly affected by the project. **(See Exhibit 12)**

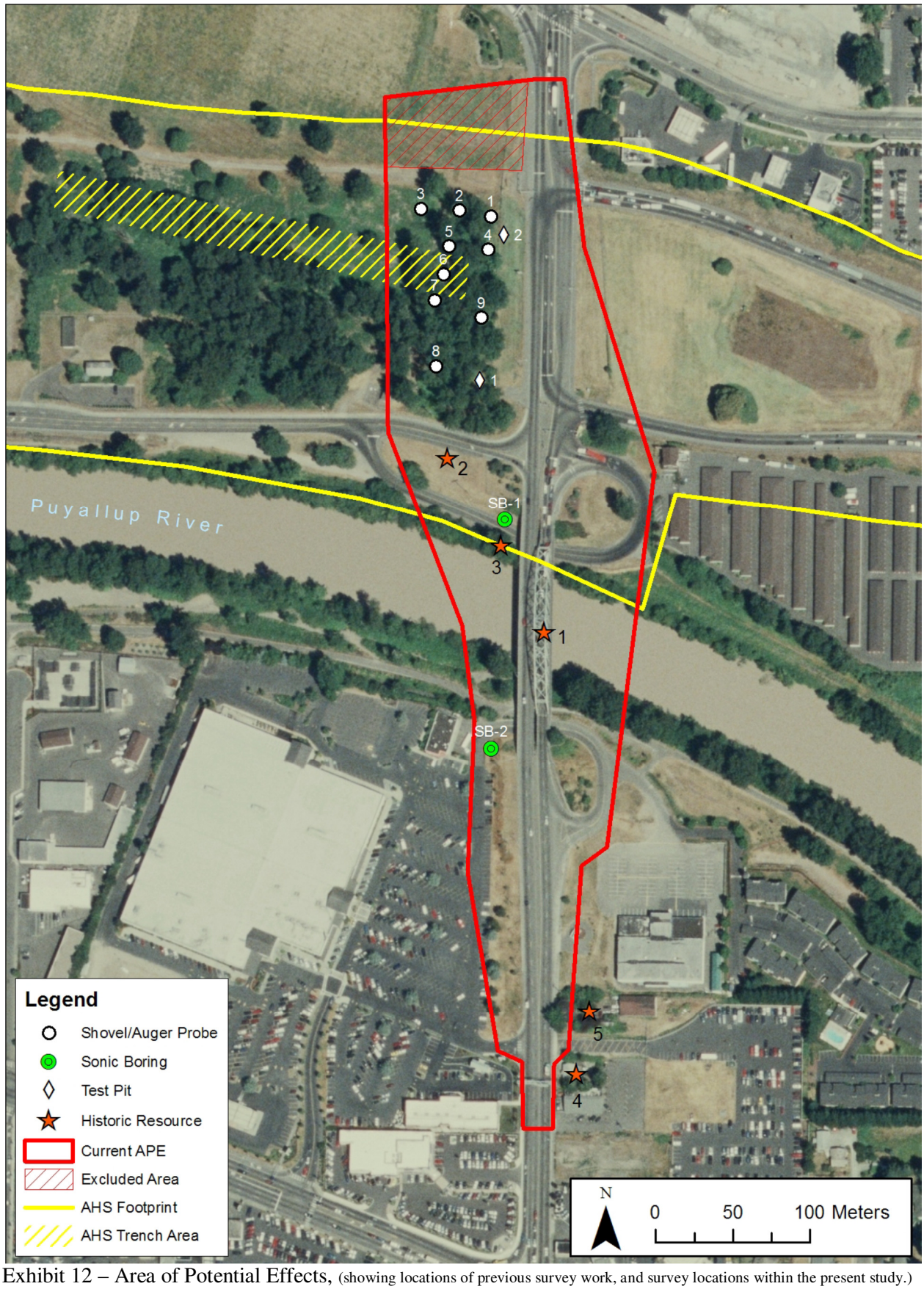

Exhibit 12 – Area of Potential Effects, (showing locations of previous survey work, and survey locations within the present study.)

Only the revised river crossing design study area, which encompasses the proposed PRBR project, was surveyed for the supplemental report. Any other areas of the 167 Extension project APE requiring Section 106 review or reevaluation will be addressed during future project phases.

3.4.2 What new studies and consultations have been undertaken?

Consultation with area tribes was reinitiated as soon as it was known that the APE may be revised. See Section 4.2 for more detail on consultation and coordination with tribes. A cultural resources survey was performed within the additional APE, and a report that supplements the previous cultural resources survey for the 167 Extension project, was completed in August 2012. The change in the current PRBR project is that the Meridian Street Bridge is eligible for listing on the NRHP, while it had not been determined eligible when the 2006 Final EIS was prepared. Therefore, the report includes the finding of an adverse effect to the historic bridge. The State Historic Preservation Officer (SHPO) concurred with WSDOT's determination of eligibility and affect call. Since historic resources are also Section 4(f) resources, an addendum to the Section 4(f) evaluation was completed. See Chapter 5 of this Final Supplemental EIS for discussion of the Section 4(f) evaluation. See Appendix A for the cultural resources survey and Appendix B for the addendum to the Section 4(f) evaluation, for more detail.

3.4.3 What archaeological or historic resources have been identified in the APE?

No archaeological resources were identified within the extended area. Of the historic resources recorded within the APE, only the Meridian Street Bridge was determined to be eligible for listing on the NRHP. Reevaluation of the bridge for the supplemental survey yielded additional information on the unique nature of its design. The Meridian Street Bridge is currently the longest, simply supported, steel riveted Warren through truss span built prior to 1940 remaining on the Washington State highway system. The popularity of the Warren truss emerged in the late 1930s, and continued through the 1950s. Very few truss bridges were built on state-owned highways after 1960. Although a modest number of Warren trusses still remain on the system, the number has declined. Narrow bridges with restricted vertical clearance, such as through trusses, are routinely replaced by wider concrete bridges.

The Meridian Street Bridge is also significant for its unusual, perhaps unique truss configuration. As a variation from the standard Warren truss' horizontal top chord, the bridge has a parabolic top chord allowing for a longer span length than possible with the standard top chord. The parabolic configuration also avoided the need for heavier, or additional, truss components to reach the entire span length. Its subdivided panels and the addition of longitudinal members at the mid-panel heights in five truss panels achieved both strength and economy of steel. The bridge is significant for its design, which is the only one of its kind in Washington and may very well be unique in the United States if not the world, although additional research would be needed to confirm that conclusion. Despite modest alterations over the years, and additions made for safety and structural improvement, the bridge retains integrity of design, materials and workmanship, and is thus eligible for inclusion in the NRHP under Criterion C. The SHPO concurred with the WSDOTs determination of eligibility on February 8, 2012.

3.4.4 How will the Puyallup River crossing affect archaeological or historic resources?

The Puyallup River crossing would remove the existing NRHP eligible Meridian Street Bridge with either design. The funding for the PRBR project that would replace this bridge has been expedited because of the severe corrosion of the steel members and delamination of the concrete floor beams and piers. The structure is rated as *structurally deficient* based on the floor beam deterioration. The project will take the bridge out of service as part of SR 167, and remove the structure from its current location.

3.4.5 What measures will be taken to minimize effects to the Meridian Street Bridge?

WSDOT has undertaken a complete redesign of the Puyallup River crossing aspect of the 167 Extension project, in order to minimize the adverse effect to the Meridian Street Bridge. The original design required that the Meridian Street Bridge be removed as a first order of work, so that a new bridge could be constructed in its place. The revised design would construct a new bridge to the west side of the 1970 bridge, which allows the Meridian Street Bridge to remain in operation during construction of the new bridge. This also allows more time to achieve agreement on a mitigation plan, and to relocate the structure. WSDOT developed partnerships with the affected local jurisdictions and plans to reuse the Meridian Street Bridge steel truss structure in another location.

3.4.6 What measures will be taken to mitigate effects to the Meridian Street Bridge?

Because of its historic significance, WSDOT pursued ways to preserve the Meridian Street Bridge even though it will need to be removed from its present location. The local jurisdictions (King and Pierce Counties) are exploring the possibility of using the bridge on the Foothills Trail to connect Enumclaw and Buckley across the White River. If this plan does not work out, WSDOT is prepared to store the bridge and market its availability for preservation at an alternate site.

An Amended Memorandum of Agreement (MOA) was developed on May 6, 2013 to stipulate the measures that will be taken to achieve this proposed mitigation. The MOA also stipulates additional Section 106 review of future phases of the SR 167 Extension project in order to ensure that historic properties outside the Meridian Street Bridge, PRBR project area have been adequately taken into account. WSDOT and FHWA will continue consultation with interested parties in order to seek ways to minimize, or mitigate adverse effects to the Meridian Street Bridge that would result from the PRBR project.

3.4.7 Will there be an archaeological monitoring plan implemented during construction?

The Amended MOA developed for this project includes a stipulation that states in part:

> "At least 90 days prior to advertising the project for construction, an Unanticipated Discovery Plan (UDP) will be developed which will include any monitoring deemed necessary,..."

This UDP will be developed in coordination with SHPO and consulting tribes.

3.5 Threatened and Endangered Species Consultation

WSDOT prepares a biological assessment for each federally funded project, when there are listed species in the area, to evaluate the potential impacts to any threatened or endangered species and the critical habitats for those species. In consultation with the federal regulating agencies, NMFS and USFWS, the biologist develops conservation measures that will be incorporated into the project design or construction plan.

3.5.1 What has changed in the project area?

Since the 2006 Final EIS and associated Endangered Species Act (ESA) Consultation was reviewed, the following conditions have changed within the study area:

- Two additional fish species have been listed as threatened – Puget Sound steelhead and the southern distinct population segment of Pacific eulachon;
- Bull trout critical habitat has been designated within the project area; and,
- Bald eagle was de-listed.

Pacific Eulachon
Nineteenth century references that mention abundant eulachon in Puget Sound are now believed to be results from misidentification with either the common longfin smelt or surf smelt. Twentieth century collection records support the rarity of eulachon in Puget Sound and rivers like the Puyallup. Relatively recent work on the biology, status, and trends in marine forage fish by WDFW notes the lack of life history information on eulachon in Puget Sound and their work shows no evidence of spawning stocks of eulachon in Puget Sound rivers. We did locate one record of a eulachon capture during the monitoring of the Gog-le-hi-te wetlands located downstream near the mouth of the Puyallup River. The potential effects to eulachon were determined to be discountable by both the WSDOT/FHWA and the NMFS. "Discountable" is an ESA specific term appropriately used when effects are extremely unlikely to occur because the exposure of listed species is extremely unlikely. The rarity of eulachon in the Puyallup River, and the greater Puget Sound supports this determination. The nearest designated eulachon critical habitat is located in the Elwha River, well outside the action area for this project. There is no possibility of the project affecting the nearest designated critical habitat.

The proposed Puyallup River crossing design revision does not change the general habitat involved, which includes the river and riparian zone. The original design and the new design all fall within a footprint less than 200 feet wide.

3.5.2 What new studies and consultation have been undertaken?
WSDOT consulted with NMFS and USFWS regarding the proposed design changes involved with the Puyallup River crossing, and the proposed PRBR project. An update to the biological assessment has been prepared and submitted to the Services for their review on 07/25/2012, which evaluates the potential impacts with the revised design and the changed conditions within the study area. The ESA Section 7 formal update to USFWS has completed the necessary consultation with the service at this time. FHWA and WSDOT reinitiated consultation with NMFS and received NMFS' biological opinion on 02/07/2013. (The biological assessment update letters and NMFS re-initiation letter are attached, in **Appendix C**.)

3.5.3 Are there any changes to how species might be affected during construction?
The revised design for the Puyallup River crossing does not change the determination on bull trout: *may affect, likely to adversely affect.* However, with the update that has been made to the extent of bull trout critical habitat in the Puyallup River, the determination of *may affect, likely to adversely affect* on bull trout critical habitat is an additional potential effect of the 167 Extension project in the Puyallup River crossing area. The revised design does not change the original determination of *adverse affect* on essential fish habitat. There are no other changes in affect with the revised design.

The revised design will reduce the magnitude of some of the effects (underwater noise, turbidity, shading) for the Puyallup River portion of the action area. Although the specific construction methods will not be known until final plans are available from the contractor, it is anticipated that the number of piles for temporary structures in the Puyallup River may be reduced by 1/3 to ½ from the original estimate of 300 piles. This will lead to reduced sound exposure levels for listed and Chinook Salmon, fewer days with in-water pile driving and less associated turbidity, less shaded area in the river, a smaller area of impact to benthic prey organisms and a reduced in-river area for temporary structures that may affect salmonid migration.

The currently proposed PRBR project will only construct a portion of the ultimate Puyallup River crossing. When a future project is funded to remove the 1970 bridge and construct a new five-lane northbound bridge, the study area conditions and project effects will be reassessed and updated.

3.5.4 What conservation measures will be included in the project?

The construction of the PRBR project and future construction associated with the revised Puyallup River crossing would implement WSDOT standard construction practices to avoid impacts to water quality and thereby impacts to aquatic life and habitat. Additional design work on stormwater best management practices (BMPs) is in progress and staff will be conducting a stormwater analysis as plans develop. Preliminary plans call for placement of a biofiltration swale within the northwest bridge quadrant; a feature of the revised design for this phase of work. Two existing bridge outfalls will also be relocated, with no additional outfalls being constructed. Final plans will be developed by the design-build contractor and will meet or exceed the design standards specified in the biological opinions, including the use of enhanced BMPs for this area. To limit in-water noise levels, piling is required to be installed to the degree possible using a vibratory hammer and impact driving/proofing will require noise reduction measures. In-water work will be timed to avoid adult salmon, bull trout and steelhead migration. Full containment will be required during demolition work to prevent debris from falling into the river. Additionally, the project will follow the provisions of all applicable permits and approvals **(See Section 1.8)**.

The new Puyallup River bridge will have open space for wildlife passage on either end of the bridge consistent with what is there now. Wildlife that may be present currently has access under both ends of the bridges via the levees, roads, trail, and riparian habitat.

The final 167 Extension project may create additional wildlife connectivity barriers in this area that is already compromised with barriers (roadways) and is rapidly losing habitat to development. While the Tier II FEIS predates WSDOTs Executive Order 1031, *Protections and Connections for High Quality Natural Habitats*, the project planning did consider habitat connectivity. For example, the riparian restoration plan includes removal or replacement of undersized culverts to improve impeded corridors. Additionally, the plan will link fragmented upland habitats that extend well beyond the project limits.

An impact minimization measure the FHWA/WSDOT committed to during ESA consultation is that we will "use stream simulation and other currently approved design criteria, so that new stream crossing structures will not impede fish passage and will facilitate wildlife passage where possible." As segments of the corridor are funded and designed, the feasibility and benefit of wildlife passage will be considered.

3.6 Water Resources

3.6.1 What is similar between the 2006 FEIS and the proposed design in terms of water resources?

There would be no difference in the amount of impervious surface with the completed project. The revised design would not differ in impacts to ground water or surface water. Within the very limited extent of river and shoreline involved in this study area, there is no difference in permanent impacts or mitigation of the completed Puyallup River crossing portion of the 167 Extension project with either alignment of the structures. The habitat is uniform within the original and current effect limits, thus there are no differences in the quality or sensitivity of water resources/aquatic habitat at the new location 10 feet downstream. Both designs would remove the Meridian Street Bridge, and ultimately construct a new five-lane northbound bridge structure.

The 2006 FEIS presented only a preliminary design for the new bridge structure, but estimated a maximum of four permanent piers located within the ordinary high water mark of the river (2006 FEIS p. 2-23). With in-water work restricted to a six week window (July 15 – August 31), in-water work is expected to span two construction seasons. These aspects of the Puyallup River crossing are not expected to be different, since no further design of the five-lane northbound structure has been developed.

3.6.2 What are the differences between the 2006 FEIS and the proposed design in terms of water resources?

To construct the bridge replacement as proposed in the 2006 FEIS, two temporary trestles and one temporary detour bridge would be necessary. It was originally expected that one of the temporary work trestles would need to extend the full width of the river. Each temporary structure would involve installation and removal of multiple piles. Additionally, construction of two temporary in-water work trestles and a temporary traffic detour bridge would take two years, given the 6-week in-water work window (July 15 – August 31). The 2006 FEIS design had a maximum of two in-water piers.

In the proposed PRBR design, the work would shift the new bridge to the west approximately 10 feet downstream of the existing concrete bridge, instead of where the existing steel bridge is located. The new bridge design has one in-water pier. By relocating the new bridge, work can be done on the new bridge by staging equipment on the existing concrete bridge. This will eliminate the need for one in-water work trestle and the temporary traffic detour bridge. The proposed project will require the construction of an in-water work trestle approximately 30' by 100', as opposed to a 30' wide trestle adjacent to the entire length of the existing steel bridge, as proposed in the 2006 FEIS. This in-water work trestle will extend from the ordinary high water mark on the river bank, into the Puyallup River and will be used to construct the in-water bridge pier. Due to the configuration of the design for the new bridge, the need for a detour bridge has been eliminated.

The new design has several benefits over the 2006 FEIS design with respect to water resources/aquatic habitat. With only one in-water pier, the new design will have reduced permanent impacts to the Puyallup River. With no detour bridge needed and only one smaller temporary in-water work trestle the new design will reduce temporary impacts. Less pile driving means less turbidity and reduced noise impacts to listed species. Also, with only one temporary in-water work trestle, total construction time is reduced so that the *duration* of temporary impacts is also reduced. For example, the duration that the temporary in-water work trestle is in place and producing shading will be greatly reduced. Likewise, fewer days with in-water pile driving will be required.

3.6.3 How will water resources be affected during construction of the Puyallup River Bridge Replacement project?

The proposed PRBR project would construct a new two-lane bridge to the west of the 1970 bridge. The preliminary design for the proposed new two-lane southbound bridge has one permanent in-water piers. This design will allow for material and equipment to be staged off of the 1970 bridge, reducing the need for a work trestle to access the in-water piers to a 30' by 100' work platform. No temporary detour structure will be required since the new structure would be built off line, while both north and south-bound traffic is temporarily diverted to the Meridian Street Bridge during construction. This minimizes impacts to the river and shoreline.

Best management practices, permit conditions, and other measures to avoid or minimize impacts to the water during construction will be the same as they would be with the previous bridge replacement design.

3.7 Traffic

The traffic study to predict the baseline traffic and growth rate for the 2006 FEIS was reported in the 2008 Traffic Analysis Report by Perteet, Inc. This analysis used 2005 traffic volumes for the baseline, and projected volumes to year 2030. In May 2012, WSDOT updated this analysis using 2011 traffic data as a baseline, and projected volumes to year 2035, to determine the need for additional analysis. The finding was that the traffic modeling results in the 2008 analyses are higher than the updated results. Therefore, it was determined that the revised design for the Puyallup River crossing would not negatively affect traffic. The technical memorandum is attached in Appendix A.

3.7.1 What is similar between the 2006 FEIS and the proposed design in terms of traffic?

The ultimate Puyallup River crossing configuration, as part of the 167 Extension project, would require two southbound lanes and five northbound lanes. The northbound lanes would include two left-turn, one through, and two right-turn lanes connecting to the proposed SR 167/SR 161 interchange, located just north of the river crossing bridge. The Meridian Street Bridge is currently rated structurally deficient. With either design, the Meridian Street Bridge would be taken out of service for vehicular traffic, and removed from its location.

With either Puyallup River crossing design, the new replacement bridge will provide at least standard sidewalks and meet Americans with Disabilities Act requirements. With either Puyallup River crossing design, the proposed project will maintain all connections with local roads and will be compatible with the proposed new interchange.

3.7.2 How will the currently proposed PRBR project affect traffic during construction?

During construction, there will be short term closures or lane restrictions on some local roads and access points. These restrictions will be very limited due to the proposed bridge design that constructs the new bridge to the west of the 1970 bridge, while the existing bridges remain open to traffic. Bicycle and pedestrian traffic will be maintained throughout construction.

The likely material haul routes will be SR 167 and SR 410 to access local material sites, and Valley Avenue to access pre-cast facilities at the Port of Tacoma. WSDOT is not anticipating the need to use local roads for the operation of construction equipment and hauling trucks.

3.8 Indirect and Cumulative Effects

The 2006 FEIS discussed indirect and cumulative impacts with regard to each resource in Chapter 3. The cumulative impacts on critical resources were discussed in Chapter 3.17. The proposed revised design of the Puyallup River crossing as part of the 167 Extension project will not change the indirect and cumulative effects of the 167 Extension project.

3.8.1 How did the project team consider future conditions related to climate change?

WSDOT acknowledges that effects of climate change may alter the function, sizing, and operation of our facilities. To ensure that our facilities can function as intended for their planned 50, 70, or 100 year lifespan, they should be designed to perform under the variable conditions expected as a result of climate change. For example, drainage culverts may need to be resized to accommodate more intense rainfall events or increased flows due to more rapid glacial thawing.

The Pacific Northwest climate projections are available from the Climate Impacts Group at the University of Washington http://cses.washington.edu/cig/fpt/ccscenarios.shtml.

Washington State is likely to experience over the next 50 years:

- Increased temperature (extreme heat events, changes in air quality, glacial melting)
- Changes in volume and timing of precipitation (reduced snow pack, increased erosion, flooding)

- Ecological effects of a changing climate (spread of disease, altered plant and animal habitats, negative impacts on human health and well-being)
- Sea-level rise, coastal erosion, salt water intrusion

The project team considered the information on climate change with regard to preliminary design as well as the potential for changes in the surrounding natural environment. The project is designed to last 70 years. As part of its standard design, this project has incorporated features that will provide resilience and function with the potential effects brought on by climate change.

- The proposed bridge will be designed to accommodate a 100 year flood event. **(See Plan Sheet 1 of Appendix D.)**
- During construction the Design Builder will be required to implement policies to reduce greenhouse gas emissions and efficient energy use will be encouraged.
- The Puyallup River Bridge Replacement project is designed to accommodate the future SR 167 Extension project, which is intended to reduce congestion, provide improved system continuity between the SR 167 corridor and SR 509, and maintain or improve air quality within the corridor to ensure compliance with the current State Implementation Plan and all requirements of the Clean Air Act.

Chapter 4 Public, Agency and Tribal Coordination

WSDOT will continue to meet with regulatory agencies and interested parties to resolve any environmental issues that may occur during project design and construction.

4.1 Consultation with the Public

Extensive consultation with the public and interest groups was conducted during the 2006 FEIS process. The information is available in Chapter 1 of the SR 167, Puyallup to SR 509 2006 Final EIS. WSDOT provided the SR 167, Puyallup River Bridge Replacement Draft Supplemental EIS to the public and agencies for their comments. Comments received informed the completion of this Final Supplemental EIS.

WSDOT created a webpage for the PRBR project in November 2011 to provide current information about the project, and contact information for the design office. The project webpage was updated every month to highlight progress on the project.

WSDOT met with the Puyallup Valley Kiwanis in April 2012 to discuss the project with them. WSDOT will meet with any interested groups and provide project information.

During construction, WSDOT will coordinate with the Pierce County Sheriff, Washington State Patrol, and local emergency services.

4.2 Consultation with Tribes

WSDOT is committed to government–to-government consultation with interested tribes in the project area. The consultation process under Section 106 of the National Historic Preservation Act (16 USC 470f and 36 CFR 800) is continuing with the current PRBR project. WSDOT follows the Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act (information available on the WSDOT Web site) when coordinating with tribes. This model provides a consistent method of tribal consultation and opens a channel of communication between WSDOT and tribes whose area of interest is within the project boundaries.

The Puyallup Tribe was interested and involved during the Tier II EIS process. At that time, a Section 106 MOA was developed in consultation with the Puyallup Tribe and with other consulting parties. In November 2011, WSDOT met with Brandon Reynon, Puyallup Tribe Archaeologist and Bill Sullivan, Puyallup Tribe Natural Resources Manager, as the PRBR project planning was beginning. Consultation with Muckleshoot Tribe, Squaxin Island Tribe, and Yakama Nation, was also reinitiated in the early stages. In January 2012, all interested area tribes were asked to review and comment on the APE that would be surveyed for archaeological and historic resources. In March 2012 Brandon Reynon, of the Puyallup Tribe of Indians, attended the initial Section 106 Consulting Parties meeting for this phase of work. The concerns of the Tribe presented at this meeting included: possible impacts to fish habitat or tribal fishing during construction and any impacts to native archaeological sites within the project's APE. WSDOT committed to scheduling further meetings for the consulting parties and to continuing communicating with the Tribe. The cultural resources survey report was sent to all four tribes on September 5, 2012 for their review and comments. WSDOT will also request each interested tribe to be involved in all revisions to the MOA that are developed as a mitigation measure for the adverse effect on the Meridian Street Bridge.

4.3 Consultation with Agencies

WSDOT coordinates with agencies that are responsible for issuing environmental permits and who have special expertise in project related environmental fields. This coordination is accomplished through e-mails, verbal contacts and official letters. In addition to coordination on the environmental analyses discussed in Chapter 3, the following agencies were invited to provide comments on the Draft Supplementary EIS:

- Federal Highway Administration
- City of Puyallup
- King County
- Pierce County
- Washington State Patrol
- US Army Corps of Engineers
- United States Department of Interior
- Washington State Department of Fish & Wildlife
- Washington State Department of Ecology
- United States Environmental Protection Agency
- United States Fish & Wildlife Service
- National Oceanic and Atmospheric Administration-National Marine Fisheries Service
- Washington State Department of Archaeology & Historic Preservation

Extensive consultation was done with agencies during the 2006 Tier II EIS process. The coordination efforts with different agencies have been documented in Chapter 1 of the SR 167, Puyallup to SR 509 Tier II 2006 FEIS.

WSDOT met on December 2011 with the City Manager of Puyallup to discuss the preliminary design and the status of the PRBR project. In January 2012, the project details were presented to the Puyallup City Council. The Puyallup City Council was provided with a project update on September 4, 2012.

WSDOT coordinated with the King County Capital Project Manager to discuss the project and potential re-use of the steel truss structure as a pedestrian bridge for the Foothill Trail. WSDOT is also coordinating the project with the Pierce County Civil Engineer.

WSDOT also met with the Pierce County public television station to produce a video feature that discussed the project. The story was aired in April 2012 on 'Rainier Country.'

An update to the biological assessments (BAs) for NMFS and USFWS was developed under guidance of Section 7 of the Endangered Species Act. The BAs consider how the project will affect species listed on or eligible for listing on the federal Endangered Species List. The BA updates were sent to the services on July 25, 2012. FHWA and WSDOT provided an update to USFWS, which concluded consultation, as reinitiation was not requested. Reinitiation was requested with NMFS and their Biological Opinion was received on February 7, 2013.

Section 106 Consultations

The SR 167 corridor extension project underwent National Environmental Policy Act (NEPA) and Section 106 review between 1991 and 2006. The resulting NEPA review documented Section 106 consultation culminating in execution of an MOA. While the corridor extension project had always proposed replacement of the Meridian Street Bridge, it was not deemed eligible for the NRHP at the time of the 2006 FEIS and Section 106 consultation. Funding for an interim phase of the corridor extension project was dedicated by the 2011 legislature to address structural deficiency found to exist with the Meridian Street Bridge.

Through a December 20, 2011 letter to SHPO, WSDOT initiated ongoing consultation on a slightly refined APE for this funded phase of the SR 167 Extension project. WSDOT also determined the Meridian Street Bridge to be eligible for the NRHP at that time.

Archaeological fieldwork for this phase of work was performed between March and May and the cultural resources discipline report was finalized on August 2, 2012. On August 28, 2012, the cultural resources discipline report was provided to DAHP for review and SHPO concurrence with the determination of Adverse Effect for the project, due to the anticipated effects to the Meridian Street Bridge. SHPO concurred with the determination of Adverse Effect on October 8, 2012.

WSDOT and FHWA work with consulting parties and seek the views of the public as part of the Section 106 decision making process. Consulting parties for this project include SHPO, the local tribes (Muckleshoot Tribe, Puyallup Tribe, Squaxin Island Tribe, and Yakama Nation) local governments, several organizations and individuals with a demonstrated interest in historic bridges and their preservation. To date, WSDOT and FHWA have convened four meetings (March 26, June 20, October 9, and November 27, 2012) with consulting parties to resolve adverse effects to the Meridian Street Bridge.

- **3/26/12 Initial Section 106 Consultation Meeting –** Project description and background were presented along with a preservation strategy for the historic Meridian Street Bridge that would have it moved and re-erected on the Foothills Trail. WSDOT agreed to share the engineering estimate of cost and feasibility of moving the bridge for use on the Foothills Trail, with the consulting parties once it is complete. WSDOT also agreed to maintain regular communications with the consulting parties, including scheduling another meeting and to continue exploring preservation strategies for the bridge.
- **6/20/12 Section 106 Consultation Meeting –** Consulting parties met again to discuss the project. The completed engineering estimate to move the bridge and re-erect it for use on the Foothills Trail was presented. Representatives from King and Pierce Counties presented details of possible funding opportunities to fund the Foothills Trail preservation option.
- **10/9/12 Section 106 Consultation Meeting –** Status of Foothills Trail preservation option was discussed. King County, Pierce County, City of Buckley and City of Enumclaw are all committed to seeking funding to use the Meridian Street Bridge to complete the Foothills Trail. SHPO concurrence of Adverse Effect was discussed as well as items that should be covered by an MOA resolving adverse effects to the Meridian Street Bridge. Draft MOA was distributed. Consulting parties agreed that the best option for saving the bridge is moving it from its current location onto dry land as part of the SR 167 Puyallup River Bridge Replacement project and seeking funding to reuse the bridge on the Foothills Trail.
- **11/27/12 Section 106 Consultation Meeting** – The second draft MOA and Meridian Street Bridge Treatment Plan were discussed, and the consulting parties provided comments and suggestions for improvement of the MOA and Treatment Plan.

WSDOT and FHWA will continue Section 106 consultation to resolve these adverse effects. Per the existing project MOA, which is being amended to resolve adverse effects to the Meridian Street Bridge, and per standard operating procedures, WSDOT will, on behalf of FHWA, review the SR 167 corridor APE as future phases begin final design in order to take into account their effects on historic properties.

Chapter 5 – Section 4(f) Evaluation

Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 U.S.C. §303, declares that it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project … "requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

(1) There is no feasible and prudent alternative to using that land; and

(2) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

WSDOT evaluated the Section 4(f) resources for the State Route 167 Extension project in Chapter 5 of the 2006 FEIS. Five historic properties and one archaeological site eligible for listing in the NRHP and six recreational areas were identified as eligible or potentially eligible Section 4(f) resources that would be *used* by the project. The Section 4(f) evaluation report was prepared and was available as Appendix "H" of the 2006 FEIS.

This phase will replace the Meridian Street Bridge (167/20E) and is a small phase of the larger SR 167, Extension project. This Puyallup River steel truss bridge was not eligible for the NRHP in 2006 when the 4(f) evaluation was prepared. Now it is determined eligible for NRHP.

An addendum to the original Section 4(f) evaluation is now prepared for the Puyallup River Bridge which will be available in Appendix B of this Final Supplemental EIS.

5.1 What are the additional Section 4(f) resources?

During a recent review of the status of the SR 167 Puyallup River steel truss bridge, WSDOT determined the bridge is now eligible for listing in the NRHP. The State Historic Preservation Officer (SHPO) has also concurred with WSDOT's determination.

5.2 What is the background and description of the Section 4(f) resources?

The SR 167 Puyallup River Bridge is designated bridge number 167/20E by the Washington State Department of Transportation and it is located at milepost 6.40 just outside the City of Puyallup. The existing steel truss bridge, built in 1925, is structurally deficient; the steel members are exhibiting severe corrosion and the concrete deck and piers are delaminating.

The Puyallup River Bridge is 371 feet long. The traveled lane width on the bridge is 21 feet from curb to curb with a 5 foot wooden sidewalk structure attached to the right side of the bridge. In January of 2011, WSDOT implemented a load restriction requiring vehicles larger than 10,000 pounds gross vehicle weight to use the right lane only. This was due to floor beam deterioration detected during a routine bridge inspection. In addition, the width of the bridge does not meet current standards for lane and shoulder widths, which is problematic due to the high volume of truck traffic that utilizes the bridge. As a result, the bridge is repetitively damaged due to traffic impacts to the barriers and sides of the bridge, which adds to the need for replacement of this structure.

The structure is rated as *structurally deficient* based on the floor beam deterioration. Due to the magnitude of deterioration of the structure, annual maintenance costs will begin to rise dramatically unless major rehabilitation of the structure occurs.

Since original construction of the bridge in 1925, two major projects have taken place to lengthen the life span of the bridge. The first project occurred in 1951, and it replaced the approach spans with new wooden truss structures. In 1991 a second project took place that added new horizontal members to the main steel truss structure, replaced the end bearings, replaced the expansion joints and overlaid the slab. Since those projects have occurred, routine maintenance has occurred with repairs consisting mainly of replacing sheared rivets and spalled concrete.

5.3 What are the avoidance measures taken to protect Section 4(f) resources?

The goal of this phase is to provide bridges and a roadway profile compatible with the larger SR 167 Extension project, which is currently in the preliminary engineering stage and for which new right of way has been acquired.

Several alternatives to removing the bridge, and avoiding a Section 4(f) resource, have been considered. No alternative to removing the bridge was determined to be a feasible and prudent alternative to the use of the Section 4(f) resource. Alternatives considered include*: No Build, Rehabilitation of the Existing Steel Truss, Preserve Steel Truss / Construct New Bridge & Alignment and Remove Steel Truss / Construct New Bridge.*

- The *No Build* alternative is not prudent because it does not meet the project's purpose and need. Specifically, the *No Build* would not provide a structurally sufficient bridge that meets current standards, would not accommodate an interchange, and would not accommodate truck traffic on SR 167.
- *Rehabilitation of the Existing Steel Truss* was also rejected in the EIS as five lanes will be necessary for the ultimate configuration of northbound traffic instead of the present two lanes. The rehabilitation issue was again considered for this phase of work and concerns are identified below.
- The *Preserve Steel Truss / Construct New Bridge & Alignment* alternative would construct a new bridge on an alternate alignment, and preserve the existing steel truss bridge in place. This alternative is not feasible or prudent due to the challenges related to maintaining the structural integrity of the bridge for an extended period of time, lack of funding required to maintain the bridge and because the bridge must be removed to construct the ultimate SR 167/161 interchange.
- The *Remove Steel Truss / Construct New Bridge* alternative would construct a new bridge in place of the existing steel truss. This alternative would not avoid the use of the Section 4(f) resource. Additionally, because the bridge would have to be removed as a first order of work, it would constrain the amount of time WSDOT would have to locate a site to preserve the bridge and secure the necessary funding from a third party.

Rehabilitation of the bridge is not a feasible and prudent alternative to use of the Puyallup River Bridge/Meridian Street Bridge. There are two primary issues to address in considering preserving the steel truss Puyallup River Bridge in its current use for vehicular traffic. The first and immediate concern is the deteriorated condition of the floor beams. Replacing the floor beams would be very costly and would cause significant short term traffic and environmental impacts. Also, the steel truss does not meet the current seismic code and will require extensive seismic retrofit work. This work would create significant aesthetic impacts to the truss, thus impacting its historic value. The second issue involves capacity and safety concerns. The current bridge width is too narrow to safely carry two lanes of traffic, in particular considering the high volume of truck traffic. To widen the structure, virtually all of the horizontal steel members would need to be replaced and the layout of the members would also change. This drastic change to the steel truss would virtually eliminate its historical value.

The project team investigated the surrounding area to determine if the steel truss could be moved upstream and utilized as a pedestrian facility. There are no pedestrian facilities or destinations on the north side of the river, so it is not likely the bridge would be utilized by pedestrians in the vicinity of its present location. In addition, there would be significant right of way costs associated with moving the bridge to a location near where it is currently.

Therefore, there is no feasible and prudent alternative to the use of Puyallup River Bridge/Meridian Street Bridge.

5.4 What are the measures taken to minimize the harm to Section 4(f) resources?

DAHP concurred with the determination of Adverse Effect on October 8, 2012. All prudent measures have been considered to minimize harm and to provide necessary mitigation of Section 4(f) property as detailed below: (FHWA and WSDOT will negotiate with DAHP before finalizing,)

1. WSDOT will arrange to remove from its current location, store and maintain the NRHP eligible steel truss structure to preserve it for an alternate use.

2. The documentation of the Puyallup River steel bridge will be completed in accordance with the Historic American Engineering Record standards.

3. Agreement between SHPO and FHWA has been reached through the Section 106 process of the National Historic Preservation Act and an MOA is being drafted which details measures to minimize harm.

4. In the event it is not economically feasible to re-use the steel truss bridge for the Foothills Trail, WSDOT is prepared to store the bridge and advertise its availability for preservation at an alternate site. The advertisement of the availability of the bridge would occur as soon as it became apparent that the current plan was not feasible. The steel truss would remain in-place until the end of the current project in late 2015, being advertised the entire duration. If no alternative interested parties came forward during that time, WSDOT would remove the steel truss from its current location and store it until 2019 at which time funding for further storage and maintenance of the bridge would be evaluated.

5.5 What type of coordination will be done to mitigate impacts to Section 4(f) resources?

WSDOT has negotiated with King and Pierce Counties regarding the potential for use of the Puyallup River steel truss on the Foothills Trail connecting Enumclaw and Buckley across the White River. King and Pierce Counties were very receptive to the potential preservation of the truss on their trail system and the counties proceeded with further engineering analysis to confirm that the structure could be successfully refurbished and relocated to the trail crossing. The engineering analysis was completed in June of 2012. The result of the analysis was that to re-use the steel truss will cost an additional $1.6 million more than constructing a new, narrower pedestrian bridge. WSDOT is now working with King and Pierce Counties to apply for grants and obtain funding to bridge the gap in project cost. Preservation and use of the steel truss as a pedestrian facility would be a positive result of the project, and WSDOT will continue to pursue this as the preferred alternative.

Chapter 6 – Comments Received on the Draft SEIS

FHWA and WSDOT issued the SR 167 Puyallup to SR 509, SR 167 Puyallup River Bridge Replacement Draft SEIS on January 7, 2013. The Draft SEIS was circulated to state and federal agencies, interested tribes, local jurisdictions, other interested parties and local libraries where copies were made available for public review.

Comments from three agencies were received on the Draft SEIS. In addition, the Washington State Department of Ecology reviewed the draft and had no comments.
Comments received are listed on the following pages with each response:

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BIA Comment

Sawyer, Jeff

Subject: FHWA-WA-EIS-2002-02-DE SR 167 Puyallup to SR 50 Puyallup Bridge Replacement

From: Howerton, B [mailto:bj.howerton@bia.gov]
Sent: Monday, March 18, 2013 12:54 PM
To: Sawyer, Jeff
Cc: Stanley Speaks; Judith Joseph; Scott Aikin
Subject: FHWA-WA-EIS-2002-02-DE SR 167 Puyallup to SR 50 Puyallup Bridge Replacement

Mr. Sawyer,

Per our phone conversation, BIA has reviewed above listed Draft Supplementat EIS, December, 2012, and has no comment on the document. The document is well drafted. Thank you for allowing DOI-BIA the opportunity to comment. If you have any questions please give me a call at (503) 231-6749. 1

BJ Howerton

--
Dr. BJ Howerton, MBA
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WSDOT Response

- **1.** Comment noted.

Dept. of the Interior Comment

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

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IN REPLY REFER TO
ER13/62

Electronically Filed

April 4, 2013

Brenden Clarke, Project Engineer
PO Box 47440
Olympia, WA 98504-7440

Dear Mr. Clarke:

The Department of the Interior (Department) has reviewed the Draft Supplemental Environmental Impact Statement of the SR 167 to SR 509 Puyallup River Bridge Replacement, Pierce County, WA. The Department offers the following comments for your consideration.

Section 4(f) Evaluation Comments

Following our review of the Section 4(f) Evaluation, the Department concurs that there is no feasible and prudent alternative to the use of the bridge and that all measures have been taken to minimize harm to the resource. We acknowledge your consultation with the SHPO and that a Memorandum of Agreement will be prepared which details measures to minimize harm.

2

We appreciate the opportunity to review this document. Should you have questions about the Section 4(f) Evaluation comments, please contact Alan Schmierer, National Park Service, Pacific West Regional Office, 415-623-2315. If you have any other questions, please contact me at 503-326-2489.

Sincerely,

Allison O'Brien
Regional Environmental Officer

cc:
FHWA (dean.moberg@dot.gov)
WSDOT (Megan.White@wsdot.wa.gov)
SHPO-WA (Allyson.Brooks@dahp.wa.gov)

WSDOT Response

- **2.** Comment noted.

EPA Comment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
ECOSYSTEMS,
TRIBAL AND PUBLIC
AFFAIRS

March 13, 2013

Mr. Dean Moberg, Area Engineer
Federal Highway Administration
711 South Capitol Way, Suite 501
Olympia, Washington 98501

Mr. Brenden Clarke, Project Engineer
Washington State Department of Transportation
P.O. Box 47440
Olympia, Washington 98504-7440

Re: SR 167 Puyallup to SR 509 – SR 167 Puyallup River Bridge Replacement Draft Supplemental Environmental Impact Statement (EPA Region 10 Project number: 93-025-FHW).

Dear Mr. Moberg and Mr. Clarke:

The U.S. Environmental Protection Agency has reviewed the SR 167 Puyallup River Bridge Replacement Supplemental Environmental Impact Statement. We are submitting comments in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act. Thank you for involving us in the review process.

The SR 167 Puyallup River Bridge Replacement project is a small phase of the larger SR 167 Puyallup to SR 509 extension project, for which a Record of Decision was signed in October, 2007. This phase is a proposal to construct bridges and a roadway profile compatible with the SR 167, Puyallup to SR 509 extension. The current northbound and now historic steel truss Meridian Street Bridge, constructed in 1925, would be replaced with a new concrete bridge on the west side of the existing southbound bridge for southbound traffic. The deck of the existing southbound concrete bridge would be modified to handle northbound traffic. The historic bridge would be dismantled and preserved offsite for potential future use.

Based on the information provided, we are rating the Draft SEIS as EC-2, Environmental Concerns, Insufficient Information. An explanation of the EPA rating system is enclosed with this letter. The Draft SEIS for the Puyallup River Bridge Replacement indicates that the findings in the SR 167 Puyallup to SR 509 Final EIS are unchanged except for issues pertaining to historic resources, water quality, fish, and traffic. Our comments, concerns and recommendations regarding these subject areas, and additional project-related issues, are provided below:

Historic Resources
Historic resources are well addressed in the Draft SEIS with the Historic Inventory Report and the specific discussion of the historic Meridian Street Bridge. We acknowledge the need for the proposed bridge replacement and support the search for a beneficial use of the historic bridge structure.

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WSDOT Response

- **3.** Comment noted.

EPA Comment

Water Resources
We commend WSDOT and FHWA for the proposed design changes to the bridge replacement proposal. Based on the brief discussion in the Draft SEIS, it appears that effects to water resources with the current proposed bridge replacement would be less than with the bridge replacement as proposed in the 2006 FEIS. However, the Draft SEIS includes no information regarding the downstream location for shifting the Puyallup River crossing, and does not provide any discussion of the anticipated changes in effects to water resources.

Recommendation:
In the Final SEIS, discuss whether there are any differences in the quality or sensitivity of water resources/aquatic habitat at the revised location 100 feet downstream. Discuss or estimate the changes in effects to water resources from the revised proposal. 4

Stormwater. The draft SEIS states (Appendix C, p. 3) that a stormwater analysis will be conducted as plans develop and that enhanced best management practices would be used to meet or exceed specifications in the Biological Opinion.

Recommendation:
In the Final SEIS, provide more information regarding stormwater management and its effects on water quality and threatened fish species. 5

Climate Change. The Draft SEIS does not address climate change and whether the bridge would be designed to accommodate changes in hydrology or other events that may result from climate change.

Recommendation:
Discuss any design changes or adaptations to climate change in the Final SEIS. 6

Threatened Fish Species
Two more species of fish have become listed as threatened under the federal Endangered Species Act since the SR 167 Final EIS was issued in 2006. They include Puget Sound steelhead and the Southern Distinct Population Segment of Pacific eulachon. WSDOT states (Appendix C, page 8) that Pacific eulachon use of the Puyallup River and other water bodies in the action area is "discountable" and that there would be no effect on eulachon critical habitat. We are concerned that there is little information presented in the Draft SEIS to support this conclusion.

Recommendation:
In the Final SEIS, provide more information regarding the historic and current use of the Puyallup River watershed by Pacific eulachon, a more complete basis for discounting its presence if that is appropriate, and the type and location of designated critical habitat for the southern distinct population segment. Include the updated Biological Opinion as an Appendix. 7

Tribal Treaty Rights
The Draft SEIS (p. 46) indicates the concerns of the Puyallup Tribe include possible impacts to fish habitat, tribal fishing during project construction, and potential impacts to native archaeological sites. There is no information in the Draft SEIS to determine whether or not their concerns have been addressed.

WSDOT Response

- **4.** The habitat in this area is uniform within the original and current effect limits. (**Section 3.6.1, Final SEIS**)
- **5.** This project has been specifically selected by the State Legislature for the Design-build delivery method. As a result, stormwater treatment facilities have not been designed yet. Because of this, performance standards have been developed as part of the ESA consultation to minimize effects on water quality and listed species. The performance standard requires that all stormwater runoff within the project footprint be infiltrated where practicable. If the location is determined to be unsuitable for infiltration or enhanced treatment, these areas will be analyzed for their pollutant loads and dissolved zinc and copper concentrations. This information, along with a treatment plan, will be provided to the NMFS for approval a minimum of 90 days before construction begins. If the analysis predicts potential exceedences of dissolved copper and dissolved zinc concentrations, and then leads to the NMFS disapproval of the revised treatment, reinitiation of consultation is required. (Incorporated by reference from NMFS, Reinitiation of Endangered Species Act Section 7 Consultation, 2/7/2013, **Appendix C Final SEIS**)
- **6.** Discussion of design changes/adaptations has been added to the document. **See Section 3.8.1 of the Final SEIS**.

EPA Comment

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WSDOT Response

- **7.** Nineteenth century references that mention abundant eulachon in Puget Sound are now believed to be results from misidentification with either the common longfin smelt or surf smelt. Twentieth century collection records support the rarity of eulachon in Puget Sound and rivers like the Puyallup. Relatively recent work on the biology, status, and trends in marine forage fish by WDFW notes the lack of life history information on eulachon in Puget Sound and their work shows no evidence of spawning stocks of eulachon in Puget Sound rivers. We did locate one record of a eulachon capture during the monitoring of the Gog-le-hi-te wetlands located downstream near the mouth of the Puyallup River.

  The potential effects to eulachon were determined to be discountable by both the WSDOT/FHWA and the NMFS. "Discountable" is an ESA specific term appropriately used when effects are extremely unlikely to occur because the exposure of listed species is extremely unlikely. The rarity of eulachon in the Puyallup River, and the greater Puget Sound supports this determination.

  The nearest designated eulachon critical habitat is located in the Elwha River, well outside the action area for this project. There is no possibility of the project affecting the nearest designated critical habitat. **(Section 3.5.1, Final SEIS)**

- **The updated Biological Opinion is included in Appendix C of the Final SEIS.**

EPA Comment

Recommendation:
In the Final SEIS, discuss how the Tribe's concerns are to be addressed and how the full SR 167 Puyallup to SR 509 project would respond to Treaty Rights at Risk, http://treatyrightsatrisk.org/. 8

Traffic
The May, 2012 WSDOT update of the project traffic analysis found that the new projected volumes to year 2035 are lower than what was predicted in the 2008 analysis. (Draft SEIS p. 44; Appendix A, Tech memo). While the new proposed bridge replacement would not negatively affect traffic volumes, the Draft SEIS provides no assessment of positive effects and whether the project design capacity could or should be reduced.

Recommendation:
In the Final SEIS, address potential effects of lower traffic projections to project design capacity. 9

Air Quality -- Construction Mitigation Measures
We appreciate that the SEIS mitigation commitments for air quality include measures to address fugitive dust and engine idling. We encourage WSDOT to further refine and augment the construction mitigation measures to include a full suite of strategies to prevent pollution.

Recommendations:
- In order to prevent pollution to soil, surface water, ground water, habitats and biota, use water, rather than oil or chemical suppressants, to control dust.
- In addition to residences, hospitals, and schools, other sensitive receptor locations that should be avoided when locating construction equipment and staging areas include daycare centers, senior centers, parks and other outdoor recreation areas.
- For mitigation measure 1861, consider establishing a time limit after which idling equipment and vehicles should be shut off (such as 5 minutes).
- To further reduce diesel emissions from construction vehicles and equipment, see the EPA Clean Construction website at http://www.epa.gov/otaq/diesel/construction/ for many examples of construction mitigation measures, case studies, and examples of institutional arrangements for implementing this mitigation.

10

Wildlife
The riparian corridor of the Puyallup River is important for wildlife use and movement. The Draft SEIS does not indicate whether the new bridge span and design would provide ample room, both horizontally and vertically, to ensure safe passage for terrestrial wildlife species under the bridge.

Recommendation:
Address this issue in the Final SEIS. Work with state and federal wildlife biologists to ensure the new bridge design, and full project build-out, would provide safe passage for wildlife that is suitable for low and high mobility species. 11

Construction of a new bridge, particularly over water and within an agricultural community, affords an ideal opportunity to provide bat habitat. For little or no cost, WSDOT could incorporate bat roosting habitat in the bridge design, which would be an aid to farmers and to the environment.

WSDOT Response

- **8.** WSDOT is committed to government-to-government consultation with all interested tribes. WSDOT follows the Model Comprehensive Tribal Consultation Process for the National Environmental Policy Act (information available on the WSDOT Web site) when coordinating with tribes. WSDOT has initiated consultations with the Muckleshoot Tribe, the Puyallup Tribe, the Squaxin Island Tribe and the Confederated Tribes and Bands of the Yakama Nation. WSDOT is committed to continuing communications with interested tribes and addressing any concerns during the final design and construction, including those noted by EPA.

The Puyallup Tribe, in particular, was involved in consultations during the Tier II FEIS process. They were consulted with regard to the revised APE for the Puyallup River Bridge replacement and were invited to be a concurring party to the May 2013 MOA.

EPA Comment

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WSDOT Response

- **9.** The proposed design is appropriate (not overbuilding or underbuilding). Short term traffic growth has been stunted due to the economic downturn, but long term traffic projections are still anticipated to grow.
- **10.** The design-build contractor has a responsibility to comply with all current rules of the resource agencies having jurisdiction over the project and will comply with all rules of the local air pollution authorities. A commitments list is included in Attachment A of the ROD. The contractor will be required to meet these requirements along with the WSDOT Standard Specifications. That commitments list and WSDOT Standard Specifications will be used to implement mitigation measures.
- **11.** Added discussion of wildlife connectivity to the document. **See Section 3.5.4 of the Final SEIS.**

EPA Comment

Recommendation:
Design and construct the new bridge to include bat roosting habitat. Visit http://www.batcon.org/pdfs/bridges/BatsBridges2.pdf and/or consult with Bat Conservation International for effective design information.

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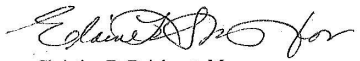
Thank you for the opportunity to provide comments on the SR 167 Puyallup River Bridge Replacement. If you have questions or would like to discuss these comments, please contact me at (206) 553-1601 or via electronic mail at reichgott.christine@epa.gov, or you may contact Elaine Somers of my staff at (206) 553-2966 or via electronic mail at somers.elaine@epa.gov.

Sincerely,



Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosure

WSDOT Response

- **12.** Due to worker health & safety, and permitting issues associated with maintaining bridges that are inhabited by wildlife species, the Agency maintains a neutral position regarding wildlife on bridges. We neither discourage, nor encourage, the use of bridges by wildlife. If wildlife chooses to use the bridge, their use will not be eliminated unless such use creates a threat to staff or causes damage to the bridge.